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## **Symposium Call Center Server Release 4.0**

### **Installation and Operations Addendum**

This document will be updated on a regular basis. Please ensure that you have the latest version of this document by checking the Partner Information Center website at <http://www.mynortelnetworks.com/> or the Symposium website at <http://www.nortel-sccs.com/>.

The following notes supplement the information in the user guides. They do not replace all the installation procedures contained in the *Symposium Call Center Server Software Installation and Maintenance Guide (Product Release 4.0, Document Standard Release 1.0, November 2000)*, *Platform Vendor Independence Base Configuration Guide (Product release 4.0, Document Standard Release 1.0, November 2000)*, and the *Symposium Call Center Server Administrator's Guide (Product Release 4.0, Document Standard Release 1.0, November 2000)*.

Please also refer to the *Documentation Addenda and Distributor's Technical Reference* for additional information. Please make sure you read and record the following updates in the three guides identified above and the *Distributor's Technical Reference* before you start any of the procedures.

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# Section 1: Converting from Release 1.5 to Release 4.0

## Introduction

This section replaces “Converting from Release 1.5 to Release 4.0”, Chapter 6, pages 168 –211 of the *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide, Product Release 4.0, Standard 1.0, November 2000*.

This section describes the process for a Symposium Call Center Server software Release 1.5 to Release 4.0 conversion. Conversion from Release 1.0 and 1.1 to Release 4.0 is possible only after you first upgrade to Release 1.5. For more information, refer to the document *Symposium Call Center Server Upgrade Instructions from Release 1.0 to Release 1.5*.

### Notes:

- In Release 4.0, a number of standard reports no longer exist. User-defined reports based on these reports are not available after the conversion. You must create new user-defined reports based on the new templates. To find out which new template contains the information you need, refer to the *Historical Reporting and Data Dictionary* document.
- In Release 4.0, the database structure has changed. User-created reports that include fields that have been deleted from the database must be updated. For instructions, refer to the *Historical Reporting and Data Dictionary* document.

**Caution:** Risk of data loss. Make sure you complete all steps in the checklists in the following sections of this guide: [Performing pre-conversion and migration procedures](#) and [Conversion checklist](#). Make sure the steps are completed in the specified order.

## Effect of conversion on agent filtering

The format of the agent name has changed in the Release 4.0 database to allow sorting on agent last name. As a result of this change, any agent filtering set up for user-defined reports is lost during the conversion. To make it easier to restore filtering after the conversion, print all user-defined reports containing agents prior to conversion (see the [Performing pre-conversion and migration procedures](#) checklist in this document).

## Default access classes

Symposium Call Center Server requires that the three default access classes (adminGroup, Call Center Admin, and Supervisor) be defined. Before beginning the conversion, you must apply PEPs on the client and server to

- prevent these classes from being deleted
- re-add them if they have been deleted
- restore their names, if they have been renamed

If any of these access classes do not exist or if they have different names, the conversion fails.

## Script syntax changes

Script syntax rules have changed in Symposium Call Center Server Release 4.0. You must ensure that you update the scripts before you convert to Release 4.0. The following script commands have changed in Symposium Call Center Server Release 4.0:

- In Symposium Call Center Server Release 1.5, it was not necessary to close comments, but in Release 4.0, all comments must be closed.
- Symposium Call Center Server Release 4.0 does not support the use of the Assigned/Assigned To commands with a call variable of type Set.
- The With Treatment option is no longer available with the Give Controlled Broadcast and Open Voice Session commands. You must ensure that the Symposium Call Center Server Global Settings is configured with the Access DN set as the default Treatment DN, and the default IVR DN is the Access DN.

### Notes:

- For more information about syntax rules, refer to the *Scripting Guide*.
- If you are converting from Symposium Call Center Server Release 1.5 to Release 4.0, use the TFE Syntax Checker Utility to check your scripts. The utility determines whether your scripts adhere to the syntax rules used in Symposium Call Center Server Release 4.0. To ensure the utility's functionality, make sure you install Symposium Call Center Server Release 1.5 PEP NI015003P083S.
- If you are converting from Symposium Call Center Server Release 1.1, make sure you install PEP SU12S and all up to PEP 154S.

**Attention:** If you do not check your script syntax before converting your system, and if the syntax of one or more of your scripts does not adhere to the new rules, the TFE service will not start up after conversion. If this happens, you must view the scripts, find the syntax errors, correct them, and validate and activate the scripts. The TFE will only start up when all scripts comply with the new rules.

## Terminology

**Conversion:** A procedure that changes the level of software installed on a Symposium Call Center Server. Converting from Release 1.5 to Release 4.0, for example, indicates that the level of software running on the server changes from version 1.5 to version 4.0.

**Migration:** Copying the data residing on a server's hard disk onto a second server. The same software release must be on both platforms. Platform migration may be required in the event of a hardware failure or to change to a different server with increased capacity

This process allows you to remove a server from the network and immediately replace it with another server.

**PVI:** Platform Vendor Independence. This term refers to the ability to install Symposium Call Center Server software on servers that are provided by the customer or distributor. Only servers that meet Nortel Networks' minimum hardware specification can be used to install Symposium Call Center Server. The PVI feature was introduced in Symposium Call Center Server Release 4.0. Pre Release 4.0 releases do not support PVI functionality.

## Requirements

| Requirements                                                                                                                                                                                                                                                                                                                                       | ✓ |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| The Nortel Networks Symposium Call Center Server Release 4.0 Operating System CD, three Windows NT 4.0 Setup Boot disks, and the Certificate of Authenticity containing the Product ID                                                                                                                                                             |   |
| Nortel Networks Symposium Call Center Server Release 4.0 Platform Support CD Version 1.0                                                                                                                                                                                                                                                           |   |
| Nortel Networks Symposium Call Center Server Release 4.0 Application CD                                                                                                                                                                                                                                                                            |   |
| If you are using the 1003t platform, you need the HP NetServer Navigator CD that accompanied the server.                                                                                                                                                                                                                                           |   |
| All server driver disks for Windows NT 3.51 and Windows NT 4.0, as described in the maintenance guide for your hardware platform.<br><br><b>Note:</b> If you are using the 1003t platform, you must generate the driver disks. These disks are used during the upgrade of Windows NT. More information on this is provided later in this document. |   |
| Three blank disks—one for a Release 1.5 Platform Recovery disk, one for an emergency repair disk, and one for a Release 4.0 Platform Recovery disk.                                                                                                                                                                                                |   |



| Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ✓ |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <p>Make sure that you have the following documents available:</p> <ul style="list-style-type: none"><li>• Installation Addendums and Readme files from your regional Symposium Call Center Server technical web site. North American customers refer to the web site at <a href="http://www.nortel-sccs.com/">http://www.nortel-sccs.com/</a>. European customers refer to the Symposium Call Center Server area on the web site at <a href="http://www.nortelnetworks.com/nic">http://www.nortelnetworks.com/nic</a>.</li><li>• Maintenance guide for your hardware platform</li><li>• Symposium Call Center Server Release 1.5 <i>Backup and Restore Instructions</i></li><li>• <i>Distributor Technical Reference and Documentation Addendum</i></li><li>• Chapter 3, "Installing and configuring pcAnywhere" in the Symposium Call Center Server Release 4.0 Software Installation and Maintenance Guide</li></ul> |   |
| Keycode and serial number from Symposium Call Center Server Release 1.5 software                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |   |
| Keycode and serial number from the Symposium Call Center Server Release 4.0 software                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |   |
| At least 256 Mbytes of free disk space on drive D of the server PC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |   |

## Pre-requisites

### X11 pre-requisites

This table details the X11 Release required for Symposium Call Center Server Releases 1.5 and 4.0.

**X11**

| <b>X11 Release</b>  | <b>Symposium Call Center Releases</b> |                    |                    |
|---------------------|---------------------------------------|--------------------|--------------------|
|                     | <b>Release 1.5</b>                    | <b>Release 3.0</b> | <b>Release 4.0</b> |
| <b>R23.47</b>       | Yes                                   | No                 | No                 |
| <b>R23.55</b>       | Yes                                   | No                 | No                 |
| <b>R24.24</b>       | Yes                                   | Yes                | Yes                |
| <b>R24.25</b>       | Yes                                   | Yes                | Yes                |
| <b>R24C(2 5.08)</b> | Yes                                   | Yes                | Yes                |
| <b>R25.10</b>       | Yes                                   | Yes                | Yes                |
| <b>R25.15</b>       | Yes                                   | Yes                | Yes                |
| <b>R25.30</b>       | Yes                                   | Yes                | Yes                |
| <b>R25.40</b>       | Restricted. See Note 2.               | Yes                | Yes                |

**Note:**

- Symposium Call Center Server Release 4.0 requires X11 Release 24 or Release 25 software.
- Symposium Call Center Server Release 1.5 is a retired product. Customers should be upgrading Symposium Call Center Server to the latest supported release if they plan on running X11 release 25.40. Symposium Call Center Server Release 1.5 support for 25.40 is being provided only to facilitate an upgrade path for those customers who are running Symposium Call Center Server Release 1.5 with X11 release 23. Customers who are running Symposium Call Center Server Release 1.5 with X11 release 24 should upgrade their Symposium Call Center server prior to upgrading to X11 25.40. Symposium Call Center Server Release 1.5 should only be run with X11 release 25.40 for a limited period of time during the transition to later releases, since problems reported with this combination will result in the fast tracking of the Symposium Call Center Server upgrade to a fully supported release.

**Server Pre-requisites**

Symposium Call Center Server Release 4.0 is supported on the following server platforms:

- 1000t in a laboratory environment only (not supported in live production)
- 1001t (some servers require updates)
- 1003t (some servers require updates)
- 701t (servers require updates)
- 702t (some servers require updates)

- PVI servers that meet Nortel Network's PVI specification

## Hardware updates

If you are converting from Symposium Call Center Server 1.5 to Symposium Call Center Server 4.0 on a 1000t, 1001t, 701t, or 702t platform, the hardware may have to be updated. This will depend on whether the current platform will be retained after the conversion.

If the current hardware platform will be retained after the conversion, see the following table and refer to the hardware requirements in the column "Conversion Requirements". If the current hardware platform will not be retained, and a migration is planned to a new server platform, in most cases a hardware update is not required. Refer to the column "Migration Requirements" in the following table.

## Migration to a PVI platform

To migrate from a 1000t, 1001t, 701t or 702t server to a PVI server, the source server must first be running Symposium Call Center Server Release 4.0. If the source server is running an earlier version of Symposium Call Center Server you must first convert to Symposium Call Center Server Release 4.0, before performing a platform migration.

| <b>Server Platform</b> | <b>Conversion Requirements</b><br>(when server is retained)                                     | <b>Migration Requirements</b><br>(when server is not retained) |
|------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| 1000t                  | - Cannot be converted<br>- To be used only as a lab system                                      | Install Windows NT drivers for SCSI CD-ROM.                    |
| 1001t                  | - 256 MB memory required (see step 4 below)<br>- Correct drive configuration (see step 5 below) | No hardware changes required                                   |
| 701t                   | - 256 MB memory required (see step 4 below)<br>- Correct drive configuration (see step 5 below) | No hardware changes required                                   |
| 702t                   | - 256 MB memory required (see step 4 below)<br>- Correct drive configuration (see step 5 below) | No hardware changes required                                   |
| 1003t                  | - Correct drive configuration (see step 5 below)                                                | No hardware changes required                                   |

## Performing pre-conversion and migration procedures

To make sure that the server is set up and ready for the conversion, perform these steps at least three days before beginning the conversion.

### Notes:

- Some of these steps are required as a result of changes to hardware requirements in Symposium Call Center Server Release 4.0.
- If you want to perform a server conversion from Symposium Call Center Server Release 1.5 to Release 4.0 and perform a platform migration, you must perform the conversion and migration separately.
- If you want to migrate from, for example, a 2 Gbyte first physical drive server to a 4 Gbyte first drive server, perform the conversion on the original server first, and then migrate to the new server. This ensures that there is more free disk space on the new server. In this case, the swap file on the new server remains on drive D.
- If you want to migrate from, for example, a 4 Gbyte first physical drive server to another 4 Gbyte first drive server, perform the platform migration to the new server first, and then perform the conversion. (Since the new server is usually faster, the conversion process finishes sooner on the new server.) This is a key consideration, since there is usually a limited amount of downtime available to complete this task.

This section outlines a series of procedures that should be performed prior to the installation of Symposium Call Center Server Release 4.0.

The pre-conversion and migration procedures for Symposium Call Center Server Release 1.5 to 4.0 involves completing the following tasks:

- 1 Obtain the latest Installation addendum and product documentation.
- 2 Apply the latest Service Updates and PEPs
- 3 Ensure you have all required drivers available
- 4 Check for excessive Alarms
- 5 Perform a Database Integrity Check
- 6 Perform a database backup and check the Backup logs
- 7 Create a Platform Recovery Disk
- 8 Perform hardware upgrades
- 9 Check disk configurations
- 10 Update script syntax
- 11 Run a PreSysOpsSvr check
- 12 Perform a RAID consistency check
- 13 Perform a RAID configuration backup
- 14 Check call reporting duration
- 15 Ensure that the DNS name is checked
- 16 Check the target server configuration (for platform migration only)
- 17 Check the target server drive and drivers versions (for platform migration only)
- 18 Delete selection criteria from all user-defined reports containing agents

Follow these procedures in the exact order that they are presented in this document. Do not circumvent, reorder, or omit any steps in any procedure.

## **1 Documentation**

Before beginning a conversion or migration please obtain the following documentation:

- the latest installation addenda. This can be obtained from your regional Symposium Call Center Server technical web site. North American customers refer to the web site at <http://www.nortel-sccs.com/>. European customers refer to the Symposium Call Center Server area on the web site at <http://www.nortelnetworks.com/nic>.
- *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide* Chapter 11, page 309, "Backing up data" and Chapter 12, page 355, "Restoring data".

## **2 Service Updates and PEPs**

Apply the most recent Symposium Call Center Server 1.5 Service Updates (SU) to the Symposium Call Center Server Release 1.5 system.

Apply the following PEPs on the server (for detailed instructions, see "Overview" on page 116 of *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*):

- Server PEP NI015003P083S
- Server PEP NI015003P068S
- SU10S is the current service update available at this document release.

To check the latest Service Update for Symposium Call Center Server Release 1.5, refer to the Meridian Patch Library (MPL) website:

- For Europe: <https://www21.nortelnetworks.com/MPL>
- For North America: <https://www43.nortelnetworks.com/MPL>

## **3 Ensure all required drivers are available**

It will be necessary to install drivers during the installation of Windows NT 4.0 on your Nortel Networks Server. The drivers you will require can be created from the NTRH8101 driver CD and the HP Navigator CD. The list of required drivers is as follows:

**For 701t, 702t, and 1001t servers:**

- NTRH8023 Symbios SCSI driver
- NTRH8014 3Com PCI Ethernet driver
- NTRH8014 Intel PCI Ethernet driver
- NTRH8024 Tandberg driver

**For systems with RAID:**

- NTRH8003 Mylex DAC 960 driver
- NTRH8053 Mylex Accele 353 driver

**For 1003t servers:**

The NTRH8045 HP Navigator CD contains the NetRaid drivers and the IIP NIC drivers. The Windows NT Operating System provides the Adaptec AIC-78xx SCSI driver and the HP NetRaid adapter driver.

## **4 Excessive alarms**

Check your system for excessive alarms. For more information, see Chapter 10 “Working with alarms and events” on page 295 of the Release 4.0 *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*.

If your system has been experiencing excessive alarms, such as critical alarms, contact Global Nortel Technical Support (GNTS) to perform an audit.

## **5 Database Integrity Check**

To ensure the integrity of the database, Nortel Networks recommends that you perform a Database Integrity Check before upgrading to Symposium Call Center Server Release 4.0. This will prevent any database consistency problems and ensure that the database is in good order and that the migration does not fail because of an inconsistent database.

Before starting the Database Integrity Check, make sure that the latest Service Update PEP and subsequent PEPs are installed on the Symposium Call Center Server. The Database Integrity Check should be performed immediately before the Symposium Call Center Server upgrade.

**Note:** The Sybase SQL Server Service must be shut down and restarted prior to a Database Integrity Check. This is done to terminate all existing database connections. If database connections are not terminated, the Database Integrity Check may show incorrect results.

To perform a Database Integrity Check, from the “SysOps Utilities” program group, select “Migration Utilities” and then “Database Integrity Check”.

The Database Integrity Check may generate database error messages in the C:\DbChk.log log file.

**Note:**

- After completing the Database Integrity Check, search the log for key words such as Error, Complete, MSG or Failed.

- Contact GNTS if you are unsure about the log file messages that contain such words.
- For migrations on Symposium Call Center Server Release 4.0, Nortel Networks recommend that a Database Integrity Check is done before the migration.

## 6 **Database backup and logs**

Perform a database backup on your Symposium Call Center Server Release 1.5 system and then check the backup logs to ensure that no error messages are present.

### **Database backup**

Ensure that you have a current database backup of the server. For more information, refer to the Symposium Call Center Server Release 1.5 *Backup and Restore Instructions*.

### **Backup logs**

Check backup logs. Search DB\_bkp<n>.log (n=1 is most recent) to locate the partial backup log. Certain error messages can be ignored such as "DB-Library error: Attempt to bind to a non-existent column."

The following messages are embedded in a backup log from a successful backup, ensure that they appear for a successful backup:

[SERVER MESSAGE]:Backup Server: 3.42.1.1: DUMP is complete (database cbc).  
[SERVER MESSAGE]:Backup Server: 3.42.1.1: DUMP is complete (database blue).  
[SERVER MESSAGE]:Backup Server: 3.42.1.1: DUMP is complete (database master).

**Note:** Super PEP 10 contains a utility called "Sysops Check" that does this check plus a few others.

Contact GNTS if you are unsure about the log file messages. See "Monitoring backups" on page 324 of the *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*.

A sample Symposium Call Center Server 1.5 database log files from a successful backup is provided below:

DB\_bkp<n>.log

Msg 304801, Level 1, State 1

[TIME]:Fri Jan 14 12:03:52 2000

[SERVER]:PTORY04E\_SQLSRV\_BS

[SERVERRelease MESSAGE]:Backup Server : 3.48.1.1: The Backup Server will go down immediately. Terminating sessions.

\*\*\*\*\*

DB-Library error:

Attempt to bind to a non-existent column.

\*\*\*\*\*

DB-Library error:

Attempt to bind to a non-existent column.

\*\*\*\*\*

Msg 3216, Level 0, State 1

[TIME]:Fri Jan 14 12:08:04 2000

[SERVER]:

[SERVERRelease MESSAGE]:Backup Server session id is: 5. Use this value when executing the 'sp\_volchanged' system stored procedure after fulfilling any volume change request from the Backup Server .

Msg 602801, Level 1, State 1

[TIME]:Fri Jan 14 12:08:04 2000

[SERVER]:PTORY04E\_SQLSRV\_BS

[SERVERRelease MESSAGE]:Backup Server : 6.28.1.1: Dumpfile name 'cbc\_01.10.34 ' section number 0001 mounted on tape drive '\\.\tape0'

Msg 304201, Level 1, State 1

[TIME]:Fri Jan 14 12:10:21 2000

[SERVER]:PTORY04E\_SQLSRV\_BS

[SERVERRelease MESSAGE]:Backup Server : 3.42.1.1: DUMP is complete (database cbc).

Msg 3216, Level 0, State 1

[TIME]:Fri Jan 14 12:11:05 2000

[SERVER]:

[SERVERRelease MESSAGE]:Backup Server session id is: 8. Use this value when executing the 'sp\_volchanged' system stored procedure after fulfilling any volume change request from the Backup Server .

Msg 602801, Level 1, State 1

[TIME]:Fri Jan 14 12:11:05 2000

[SERVER]:PTORY04E\_SQLSRV\_BS

[SERVERRelease MESSAGE]:Backup Server : 6.28.1.1: Dumpfile name 'blue\_01.10.34' section number 0001 mounted on tape drive '\\.\tape0'

Msg 304201, Level 1, State 1



[TIME]:Fri Jan 14 12:13:25 2000  
[SERVER]:PTORY04E\_SQLSRV\_BS  
[SERVERRelease MESSAGE]:Backup Server : 3.42.1.1: DUMP is complete  
(database blue).

Msg 3216, Level 0, State 1

[TIME]:Fri Jan 14 12:15:56 2000  
[SERVER]:  
[SERVERRelease MESSAGE]:Backup Server session id is: 11. Use this value when  
executing the 'sp\_volchanged' system stored procedure after fulfilling  
any volume change request from the Backup Server .

Msg 602801, Level 1, State 1

[TIME]:Fri Jan 14 12:15:56 2000  
[SERVER]:PTORY04E\_SQLSRV\_BS  
[SERVERRelease MESSAGE]:Backup Server : 6.28.1.1: Dumpfile name  
'master\_01.10.34' section number 0001 mounted on tape drive  
'\\.\tape0'

Msg 304201, Level 1, State 1

[TIME]:Fri Jan 14 12:16:03 2000  
[SERVER]:PTORY04E\_SQLSRV\_BS  
[SERVERRelease MESSAGE]:Backup Server : 3.42.1.1: DUMP is complete  
(database master).

Msg 304801, Level 1, State 1

[TIME]:Fri Jan 14 12:16:03 2000  
[SERVER]:PTORY04E\_SQLSRV\_BS  
[SERVERRelease MESSAGE]:Backup Server : 3.48.1.1: The Backup Server will go  
down immediately. Terminating sessions.

\*\*\*\*\*

DB-Library error:

Attempt to bind to a non-existent column.

\*\*\*\*\*

\*\*\*\*\*

DB-Library error:

Attempt to bind to a non-existent column.

## 7 **Platform Recovery Disk**

Ensure that a Platform Recovery Disk is created when a database backup is done. This should happen close to the time when the conversion or migration is to be performed. When restoring, make sure you use the database backup created at the same time as the Platform Recovery Disk and keep these two items together.

Call GNTS if you need to ensure the Platform Recovery Disk has the appropriate files.

To create a Platform Recovery disk on a Release 1.5 server:

- 1 Insert a disk into the floppy drive.
- 2 Open the SysOps Utilities program folder and double-click Migration.
- 3 Select Dump system information to floppy disk and click Continue.  
**Result:** The program prompts you to insert a disk.
- 4 Click OK.  
**Result:** The program saves the configuration to the disk, and displays messages telling you that the save is complete.
- 5 Click OK in response to these messages.  
**Result:** The program prompts you to remove the disk.
- 6 Click OK.
- 7 For reference during the conversion, print the file Miginfo.txt, located on the disk.
- 8 Label the disk with "Platform Recovery Disk Release 1.5" and the current date, and store it in a safe place.

### **Database Segmentation Overlapping**

The Platform Migration may fail if database segmentation overlapping occurs on the source server database. During platform migration on the target server, the Symposium Call Center Server creates the database with the information from the old Symposium Call Center Server database (dbdvc.txt and dbseg.txt files). It creates the new database in the same sequence as it created the database devices (data & log devices). If there is a database segmentation overlapping error reported in the Platform Recovery Disk files, the Symposium Call Center Server will not be able to create the database and the error message: Database Creation failed appears.

**Note:** On the server where there is database segmentation overlapping, an upgrade on the same server would be successful. You do not create a database during an upgrade.

Check the source server for database segmentation overlapping to prevent installation failure. The following are the two types of database segmentation overlapping that the procedure outlined below attempts to detect:

- Log segment on the Data device.
- Data segment on the Log device.

To check for database segmentation problems:

- 1 On the source Symposium Call Center Server Release 1.5 system, create a Platform Recovery Disk.
- 2 Use Windows Explorer to view DBSEG.TXT on the Platform Recovery Disk.  
**Note:** DBSEG.TXT is a read only and hidden file, you may have to re-configure Windows Explorer to view hidden files.
- 3 Check the following for Blue and cbc databases:

BLUE DATABASE FILES:

- bluedat(\*) files should NOT have a segmap column value of 4.
- bluelog(\*) files should NOT have a segmap column value of 3.

CBC DATABASE FILES:

- cbcdat(\*) files should NOT have a segmap column value of 4.
- cbclog(\*) files should NOT have a segmap column value of 3.

The following is an example of a DBSEG.txt file where database segmentation overlapping has occurred:

| name     | dbsize | dbid | segmap | lstart  |
|----------|--------|------|--------|---------|
| tempdat2 | 1813   | 2    | 7      | 26624   |
| tempdat2 | 90     | 2    | 4      | 954880  |
| bluedat2 | 1496   | 5    | 3      | 76800   |
| bluedat3 | 3669   | 5    | 3      | 842752  |
| bluedat3 | 2      | 5    | 4      | 2721280 |
| bluelog2 | 1033   | 5    | 4      | 2722304 |
| cbcdat1  | 814    | 6    | 3      | 0       |
| cbcdat2  | 2287   | 6    | 3      | 416768  |
| cbcdat3  | 1769   | 6    | 3      | 1587712 |
| cbcdat4  | 2173   | 6    | 3      | 2493440 |
| cbcdat4  | 3      | 6    | 4      | 3606016 |
| cbclog1  | 352    | 6    | 4      | 3607552 |

Row #5: bluedat3 with segmap value of 4 indicates a data segment is present but it contains a log instead of data.

Row #11: cbcdat4 with segmap value of 4 indicates a data segment but it contains a log instead of data.

If there is no DB segmentation overlapping found, proceed with migration procedure.

If DB Segmentation overlapping problem is detected, do not proceed with the migration. Contact GNTS to have DB segmentation problems corrected.

Once the DB segmentation problems have been fixed, re-generate a new Platform Migration Disk, and check the DBSEG.TXT file to verify that there is no DB Segmentation and use this new disk to perform the Migration procedure.

## 8 **Hardware upgrades**

Perform hardware upgrades where necessary. It is necessary to perform hardware upgrades on 701t, 702t (older versions), or 1001t platforms before installing Symposium Call Center Server Release 4.0. (See [Migration to a PVI platform](#) in this document to view the conversion and migration requirements for 1000t, 1001t, 701t, 702t, and 1003t servers.)

**Note:** 1000t servers can only be used in a laboratory environment. They are not supported in a live call center environment on Symposium Call Center Server Release 4.0.

- When upgrading from Windows NT 3.51 to Windows NT 4.0, Symposium documentation only refers to IDE CD-Rom Drive installation. 1000t Servers were configured with SCSI CD-Roms. For instructions on how to install a Windows NT 4.0 SCSI CD-ROM driver on a 1000t system, see [Section 11: Installing Windows NT 4.0 and the SCSI driver on a 1000t server](#) in this document.
- In the Memory Dialog box, 131,XXX refers to 128 MB, RAM. This means that a memory upgrade is required. 261,XXX refers to 256 MB, which means a memory upgrade is not required.

**Note:** Upgrading memory is not required if you are migrating to another server. Memory upgrades are required only if you are planning to retain the existing server in live production.

### **Upgrade kits**

For Europe, Middle East and Africa Regions only: Servers shipped prior to December 21, 1998 from Galway require the following upgrade kits:

- A0772452 Platform Upgrade Kit for the 701t
- A0772451 Platform Upgrade Kit for the 701t with RAID
- A0772448 Platform Upgrade Kit for the 702t
- A0772442 Platform Upgrade Kit for the 702t with RAID
- A0772450 Platform Upgrade Kit for the 1001t with RAID

These kits address the following issues:

- RAID Controller Firmware Upgrade
- 1001t Hot-Swap Backplane Firmware Upgrade
- BIOS Configuration Guidelines
- Warning Light Adjustment
- Active SCSI Bus Termination
- SCSI Cable Changes

- SCSI Termination Guidelines
- On the 702t, upgrade the Symbios to V 4.04
- On the 702t, upgrade the Motherboard BIOS to V 6.4
- On the 702t, Upgrade the video driver

All servers shipped after December 21, 1998 are fitted to current standards.

For North America, Caribbean, Latin American, Asia/Pacific regions: Platform upgrade Kits were shipped with 1.5 upgrade orders and should have been applied at all applicable sites.

Please note that the above upgrade kits are no longer orderable from Nortel Networks. If the upgrade kit has not been applied, the customer will have to obtain a new server

For all regions: Order codes for memory upgrades are detailed in the table below. When replacing memory, any variation will work. For example: 701t servers were usually shipped with four 32 MB DIMMS (there are a total of 4 DIMM slots). You can replace four 32 DIMMS with four 64 MB DIMM or two 128 MB DIMM to give a total of 256 MB.

For information on replacing memory for each server type, see [Memory replacement on 1001t, 701t and 702t](#) in this document.

| Order Code | Description                 | Notes                                                             |
|------------|-----------------------------|-------------------------------------------------------------------|
| A0720936   | 701t 64MB DIMM              | North America: not in Product Catalog but is still orderable      |
| A0720937   | 701t 128MB DIMM             | North America: not in Product Catalog but is still orderable      |
| A0744720   | 1001t 64MB SIMM             | North America: in July US and Canadian Symposium Product Catalogs |
| A0744727   | 1001t 128MB SDRAM           | North America: in July US and Canadian Symposium Product Catalogs |
| A0741595   | 702t 64MB SDRAM DIMM        | North America: in July US and Canadian Symposium Product Catalogs |
| A0744456   | 702t Call Pilot 128 MB DIMM | North America: in July M1/Call Pilot North American Catalogs      |

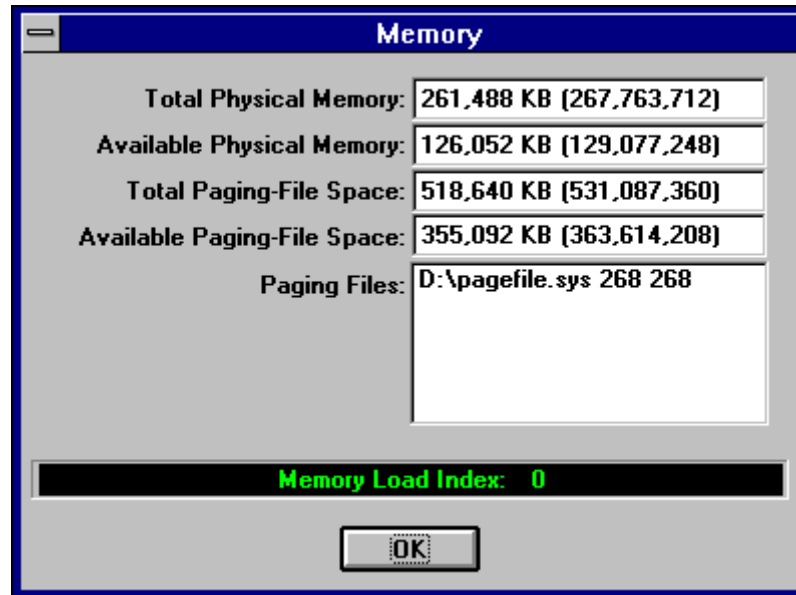
#### To check available memory

- 1 In the Program Manager window, double-click Administrative Tools.
- 2 In the Administrative Tools window, double-click Windows NT Diagnostics.

**Result:** The Windows NT Diagnostics window appears.

- 3 Click Memory.

**Result:** The Memory dialog box appears.



- 4 Make sure total physical memory is greater than 256 000 Kbytes.
- 5 Click OK to close the Memory dialog box.
- 6 Choose File Exit to close the Windows NT Diagnostics window.

## 9 **Disk partitioning**

Check the drive partitions to ensure that they have the correct drive configuration for PVI platforms. Symposium Call Center Server Release 4.0 configurations require that all optional drives are extended partitions (logical drives).

For more information, see “Collecting source server information” on page 17 of the *Nortel Networks Symposium Call Center Server Platform Migration Guide*, and [Section 4: Disk partitions](#) of this document.

## 10 **Script syntax**

You will need to update the script syntax on the Symposium Call Center Server Release 1.5 system. Script syntax rules have changed in Symposium Call Center Server Release 4.0. You must ensure that you update the scripts before you convert to Symposium Call Center Server Release 4.0. The following script commands have changes in Symposium Call Center Server Release 4.0:

- In Symposium Call Center Server Release 4.0, all comments must be closed. In Symposium Call Center Server Release 1.5, it was not necessary to close comments
- Symposium Call Center Server Release 4.0 does not support the use of the Assigned/Assigned To commands with a call variable of type Set
- The With Treatment option is no longer available with the Give Controlled Broadcast and Open Voice Session commands. Make sure that the Symposium Call Center Server Global Settings are configured with the Access DN set as the default Treatment DN, and the default IVRelease DN is the Access DN.
- Use the TFE Syntax Checker Utility to check scripts and ensure that they adhere to Symposium Call Center Server Release 4.0 syntax rules. To ensure you have this utility, install Symposium Call Center Server Release 1.5 PEP NI015003P083S.

For more information about syntax rules, refer to the *Nortel Networks Symposium Call Center Server Scripting Guide*.

### To use the TFE Script Checker utility

Use the following utility to check your scripts for compliance with new syntax rules prior to converting the system.

**Note:** The path to the utility depends on the type of conversion you are doing.

- 1 Make sure that the TFE Syntax Checker Utility has been properly installed by following these steps:

For a Release 1.5 Symposium Call Center Server running Windows NT 3.51

- a. Double-click Program Manager.
- b. Double-click Main.
- c. Double-click Command Prompt.
- d. Go to step 2.

For a Release 3.0 Symposium Call Center Server running Windows NT 4.0

- a. From the Start menu, choose Programs Command Prompt.
- b. Go to step 2.

- 2 Type **cd ..** and press Enter until you are in the D:\> directory.

- 3 Type **cd Nortelliccm\bin** and press Enter.

- 4 Type **dir SyntaxChecker.exe** and press Enter.

**Result:** The SyntaxChecker.exe file is listed.

- 5 If you do not know the ELAN IP address of the server PC, type **ipconfig** and press Enter.

**Result:** The program displays the ELAN IP address.

- 6 Type the following command and press Enter:

**SyntaxChecker -h nn.nn.nn.nn -p**

where *nn.nn.nn.nn* is the ELAN IP Address of the server.

**Note:** This command compiles all validated and active scripts in the system, and outputs the results to a log file. To also compile edited scripts, use the -e parameter (for example, **SyntaxChecker -h nn.nn.nn.nn -p -e**).

**Result:** The utility compiles each script, and indicates whether it compiled successfully (OK) or whether it contained one or more errors.

- 7 Use a text editor, such as Notepad, to view the results in the log file, systax.log.
- 8 Log on to a client PC, and edit any scripts containing errors. If the error is:
  - the use of the WITH TREATMENT option in the GIVE CONTROLLED BROADCAST or OPEN VOICE SESSION commands, remove the WITH TREATMENT option from the script.
  - an incomplete comment, close the comment by inserting \*/ at the end.
  - a call variable of type Set that is assigned a value with either the Assigned or Assigned To commands, use the procedure [To correct call variables of type Set](#) in this document.
- 9 When you are finished revising the scripts, validate and activate them.
- 10 Repeat steps 6 to 9 until no more errors are detected.

### To correct call variables of type Set:

- 1 Choose Call Flow Administration >Script Variables.

**Result:** The list of variables appears.
- 2 Click Groups.

Result: The call variables appear at the beginning of the list.
- 3 Double-click the call variable reported by the TFE Syntax Checker utility to view its properties. The General property page shows you the active scripts that reference this variable. Click the Attributes tab to see the call variable type.
- 4 For each call variable of type Set used in an Assigned or Assigned To command, you can choose one of the following options:
  - Create a new call variable of type Item, and replace the Set variable with your new variable in the scripts.

**Example:** You have one of the following entries in your script:



- ASSIGN Sales\_sk TO My\_Skillsets  
QUEUE TO SKILLSET My\_Skillsets
- My\_Skillsets ASSIGNED Sales\_sk  
QUEUE TO SKILLSET My\_Skillsets

(where My\_Skillsets is a call variable of type Set and initialized to Help\_sk, Services\_sk, and so on). You can replace them with

```
ASSIGN Sales_sk TO My_Skillset  
QUEUE TO SKILLSET My_Skillset
```

(where My\_Skillset is a call variable of type Item and initialized to Help\_sk).

**Note:** This change causes calls to be queued to only one skillset, Sales\_sk. Since a system has a limit of 20 call variables, you might need to delete some variables before creating new variables.

To use this method, follow these steps:

- a. Comment out the line with the Set call variable in your script.
  - b. Reactivate the script.
  - c. Create the new Item variable.
  - d. Replace the Set variable in the script with the Item variable.
  - e. Remove the comments.
  - f. Reactivate the script.
- Delete the Assigned/Assigned To statement from the scripts. The preceding examples can be revised as follows:

```
/*ASSIGN Sales_sk TO My_Skillsets*/  
QUEUE TO SKILLSET My_Skillsets
```

where My\_Skillsets is a call variable of type SET and initialized to Help\_sk, Services\_sk, and so on.

**Note:** If you choose this option, calls are queued to all the skillsets to which the call variable of type Set has been initialized.

- 5 Validate and activate the edited scripts.

Repeat step 6 in [To use the TFE Script Checker utility](#) to recheck the scripts.

## 11 PreSysOpsSvr check

A PreSysOpsSvr check should be run on the Symposium Call Center Server Release 1.5 server before conversion or migration to identify any system discrepancies such as an error in the computer name.

Contact GNTS if you are unsure of any errors that are generated.

**Note:** For Symposium Call Center Server Release 1.5 systems, the PreSysOpsSvr utility can be found in SU010.

## **12 RAID consistency check**

If you have a RAID system, Nortel Networks recommends you perform a consistency check of your RAID drives (For more information, see the Release 3.0 *Administrator's Guide*.).

**Note:** You can perform the consistency check during the conversion when you split the RAID drives, but the check is time-consuming. To save time during the conversion, perform the consistency check in advance.

## **13 RAID configuration backup**

If downtime can be scheduled for RAID systems, make a copy of the RAID configuration and store it with your system software.

- This backup will assist you in recovering from a RAID failure. The approximate time to complete this task is 20 minutes.

See "To perform a RAID backup" on page 338 of the *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*.

## **14 Call Reporting**

Check that the Call-by-Call reporting duration on the Symposium Call Center Server 1.5 server is less than 7 days.

- In general, database initialization, which occurs during the first part of the conversion, takes 1 - 3 hours.
- If the Call-by-Call duration in the historical reports is more than 7 days, database initialization could take more than 3 hours due to the increased storage size.
- If you find this number is set above 7 days, discuss with the customer and try to decrease the number of days if possible.
- The amount of data stored in the database will be adjusted after midnight according to the days set in historical reports

## **15 Host Name**

If a platform migration is required, make sure that the Host name on the target server matches that on the source server after installing the operating system.

The Host Name is configured in the DNS tab in the “Microsoft TCP/IP Properties” screen. It is case sensitive and should match the computer name. Failure to correct the name could cause installation failure. “Configuring TCP IP for ELAN, CLAN, and Remote Access Service” on page 45 of the *Symposium Call Center Server Software Installation and Maintenance Guide*.

## **16 Target server configuration when performing a platform migration**

For platform migration, make sure the target server complies with configuration requirements. These requirements vary for MAS to MAS migration, and Platform Vendor Independence migration.

Generally, the partitioned size of each disk drive on the target server should be approximately the same as or larger than the corresponding drive on the source server. In practice, the target server drive can be slightly smaller than the source server drive. For non Disk 0 drives (drives C and D), Nortel Networks recommends that the target server disk size should not be smaller than 98 percent of the corresponding drive on the source server. For example, if the source server drive F size is 4102 Mbytes, the target server drive F size should not be smaller than 4096 Mbytes.

For more information on the disk partitions required for migrating from MAS to MAS, MAS to PVI and PVI to PVI, refer to the *Symposium Call Center Server Platform Migration Guide*.

**Note:** Symposium Call Center Server Release 1.5 cannot migrate directly to a PVI server. The Symposium Call Center Server Release 1.5 system must first be converted to Release 4.0 before migrating to a PVI platform.

## **17 Target server drive and drivers when performing a platform migration**

If a platform migration is required, ensure that the target server has the same tape drive and driver as the source server. If the target platform is equipped with a tape drive that is incompatible with the tape drive on the source server, then remove the tape drive and install a compatible drive and its driver software on the target platform. See the maintenance guide for your hardware platform.

For example, if the source server has an SLR32 tape drive, then this same tape drive and driver must be used in the target server to complete the migration. If the target server has a Tandberg SLR40 or 50 tape drive, the migration will not work. Use the tape drive from the existing, source server or install a spare Tandberg SLR 32 to complete the work.

Once the platform migration is completed, the older tape drive is no longer required. Backups can be performed on the newer tape drive.

See “Configuring the target server” on page 44 of the *Nortel Networks Symposium Call Center Server Platform Migration Guide*.

If you are using the 1003t platform, create a driver disk.

**Note:** Drivers for the 1003t platform are distributed on the HP NetServer Navigator CD-ROM.

## **18     *Delete selection criteria from reports***

At each client PC, delete selection criteria from all user-defined reports containing agents.

**Note:** After the conversion is complete, follow the procedure in “To restore report selection criteria” on page 270 of *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*. To avoid problems resulting from the database changes, follow these steps at each PC for each user-defined report containing agents:

To delete selection criteria from reports:

- 1**    Select the report, choose File > Run Now, and print the report. (For detailed instructions, see the *Supervisor's Guide*.) This step provides you with a hard-copy record of the filtering setup for the report.
- 2**    On the Reports window, select the report and choose File > Properties.
- 3**    Click the Selection Criteria tab.
- 4**    Select each agent in the Selected box, and click the right arrow to remove the agent from the box. Repeat this step until all agents have been removed from the box.
- 5**    Click Save.

## **Conversion checklist**

The following table summarizes all steps involved in converting from Symposium Call Center Server Release 1.5 to Release 4.0. This process takes from 4 to 6 hours to complete, depending on the size of your system. You must complete all of the following steps.

| Step                                                                                                                                                                                                                            | ✓ |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>1</b> Record your administrator logon password.<br><br><b>Note:</b> During the upgrade of Windows NT, all user profiles are removed. You must log on to the system as “Administrator” during the Windows NT upgrade process. |   |
| <b>2</b> Make sure that the folder D:\Temp exists. If it does not exist, create it using the Windows NT Explorer.                                                                                                               |   |

| Step                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ✓ |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <p><b>3</b> Split the RAID drives.</p> <p>When you split the RAID drives, you are breaking the mirrored image of the primary hard drives and disabling their redundant hard drives. Any software activity that is performed on the system affects only the primary set of hard drives. The disabled drives continue to have the current system configuration, and you can use them to rebuild the RAID hard drives if a problem occurs during conversion.</p> <p>If you successfully split the RAID drives refer to Chapter 11, "Backing up data" of the <i>Nortel Networks Symposium Call Center Server Release 4.0 Installation and Maintenance Guide</i> for further information.</p> <p>If you need to recover your system from a failure at this point refer to Chapter 12, "Restoring data", of the <i>Nortel Networks Symposium Call Center Server Release 4.0 Installation and Maintenance Guide</i></p> <p>If extra RAID drives are available, you can also create a RAID backup before continuing with the conversion. If you create a RAID backup, you might want to do this before the conversion since a RAID backup can take several hours to complete.</p> <p><b>Time to complete:</b> approximately 20 minutes</p> |   |
| <p><b>4</b> Move the swap file (if it is on drive D) (see <a href="#">To move the swap file</a> in this document).</p> <p><b>Note:</b> Do not restart the server PC.</p> <p><b>Time to complete:</b> approximately 20 minutes</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |   |
| <p><b>5</b> Remove the TZ variable (see <a href="#">Remove the TZ variable</a> in this document).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |   |
| <p><b>6</b> Uninstall pcAnywhere. The Windows NT upgrade causes a "missing DISPLAY_DRIVER.dll" problem with pcAnywhere. To avoid this problem, you must uninstall pcAnywhere (see <a href="#">To uninstall pcAnywhere 8.0</a> in this document).</p> <p><b>Time to complete:</b> approximately 15 minutes</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   |
| <p><b>7</b> Make sure that the video adapter installed on the server PC is a VGA-compatible Display Adapter (see <a href="#">To check your video adapter</a> in this document).</p> <p><b>Caution: Risk of system failure.</b> Before you proceed with the OS upgrade, make sure that the video adapter used by your system is a VGA-compatible Display Adapter. Failure to do so can result in the appearance of a blue screen, with the message The required system file display_driver.dll is bad or missing to appear during OS upgrade.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |   |

| Step                                                                                                                                                                                                                                                                                                                             | ✓ |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>8</b> Delete unnecessary files (such as trace and log files) from the C and D drives. Make sure at least 256 Mbytes are available on drive D (see <a href="#">To ensure that sufficient disk space is available</a> in this document).                                                                                        |   |
| <b>9</b> Perform the preconversion (see <a href="#">To perform the preconversion</a> in this document).<br><br><b>Time to complete:</b> approximately 60 minutes.                                                                                                                                                                |   |
| <b>10</b> Ensure that you have the all required drivers available to you before proceeding<br><br>. This is one of the steps that you should have completed earlier in this Chapter. If this step has not been completed, refer to <a href="#">Performing pre-conversion and migration procedures</a> earlier in this document.. |   |
| <b>11</b> Upgrade the Windows NT operating system (see <a href="#">To upgrade from Windows NT 3.51 to Windows NT 4.0</a> in this document).<br><br><b>Time to complete:</b> approximately 60 minutes.                                                                                                                            |   |
| <b>12</b> Install SNMP. This must be done before installing Windows NT 4.0 Service Pack 6A.<br><br>For details of how to install SNMP, see “Verifying RAS and SNMP setup” on page 33 of the <i>Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide</i> .                                    |   |
| <b>13</b> Apply Windows NT Service Pack 6A unless already installed (see <a href="#">To install Windows NT Server 4.0 Service Pack 6A</a> in this document).<br><br><b>Time to complete:</b> approximately 10 minutes                                                                                                            |   |
| <b>14</b> Remove Microsoft Internet Information Server (see <a href="#">To remove Microsoft Internet Information Server</a> in this document).<br><br><b>Time to complete:</b> approximately 2 minutes                                                                                                                           |   |
| <b>15</b> Install the DMI (see <a href="#">To install the DMI</a> in this document).<br><br><b>Time to complete:</b> approximately 20 minutes                                                                                                                                                                                    |   |
| <b>16</b> Run the Symposium Call Center Server software conversion (see <a href="#">To install the Symposium Call Center Server software</a> in this document).<br><br><b>Time to complete:</b> approximately 90 minutes.                                                                                                        |   |

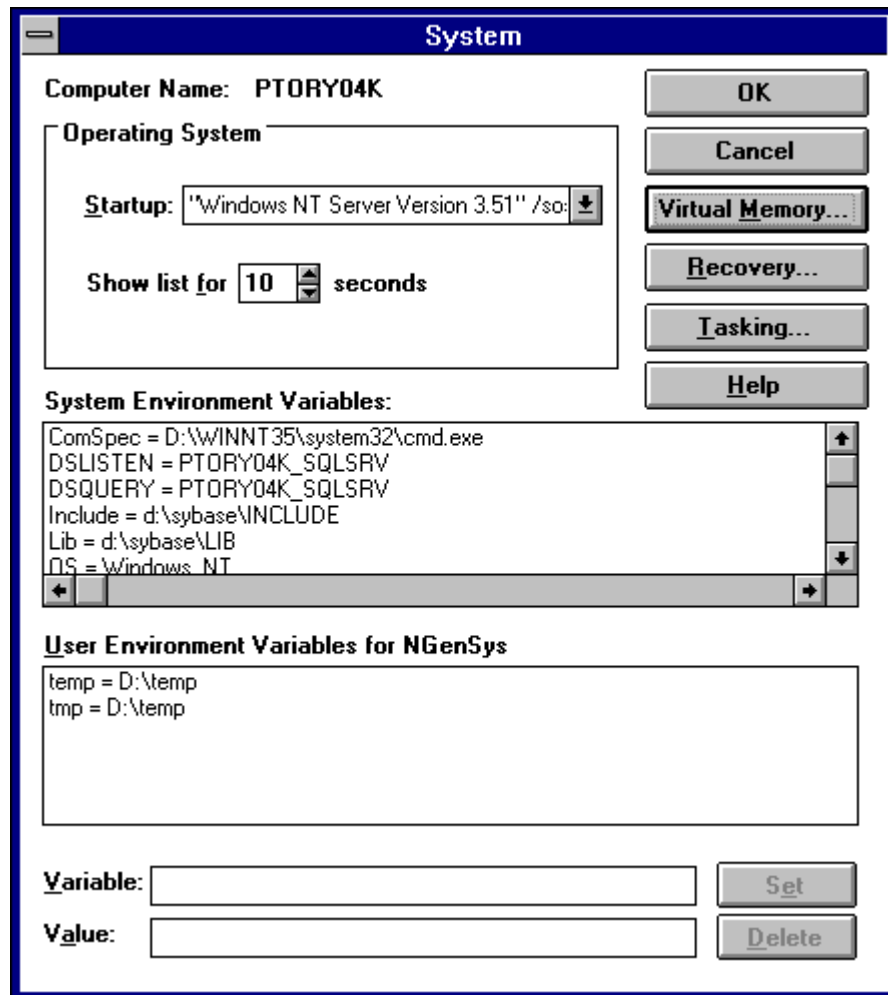
| Step                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ✓ |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <p><b>17</b> Change the video driver (see <a href="#">To change the video drivers</a> in this document).</p> <p><b>Time to complete:</b> approximately 4 minutes</p> <p><b>Caution:</b> Risk of system failure. Before you install pcAnywhere version 9.2, make sure that the proper video driver for your platform is installed. Failure to do so can result in the appearance of a blue screen after pcAnywhere installation or after use of pcAnywhere for operations such as file transfer.</p> |   |
| <p><b>18</b> Install and configure pcAnywhere version 9.2 on the server (see Chapter 3, "Installing and configuring pcAnywhere" on page 95 of <i>Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide</i>).</p> <p><b>Time to complete:</b> approximately 15 minutes.</p>                                                                                                                                                                                       |   |
| <p><b>19</b> Create an emergency repair disk (see <a href="#">To create an emergency repair disk</a> in this document).</p> <p><b>Time to complete:</b> approximately 3 minutes</p>                                                                                                                                                                                                                                                                                                                 |   |
| <p><b>20</b> (Optional) Configure RSM (see <a href="#">To enable RSM (optional)</a> in this document).</p>                                                                                                                                                                                                                                                                                                                                                                                          |   |
| <p><b>21</b> (Optional) Configure SNMP (see <a href="#">To configure SNMP (optional)</a> in this document).</p>                                                                                                                                                                                                                                                                                                                                                                                     |   |
| <p><b>22</b> Create a database backup (see Chapter 11, "Backing up data" of the <i>Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide</i>).</p>                                                                                                                                                                                                                                                                                                               |   |
| <p><b>23</b> Ensure that all Symposium Call Center Server services are started (see <a href="#">Ensuring that Symposium Call Center Server services are started</a> in this document).</p>                                                                                                                                                                                                                                                                                                          |   |
| <p><b>24</b> Move the swap file back to its original location. For instructions on moving a swap file, see the section in this document called <a href="#">To move the swap file</a>.</p>                                                                                                                                                                                                                                                                                                           |   |
| <p><b>25</b> Continue with the client conversion if required. See "Converting the client from a previous release to Release 4.0" on page 259 of the <i>Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide</i>.</p>                                                                                                                                                                                                                                            |   |
| <p><b>26</b> Rebuild the RAID drives when you are confident of system operation (see Chapter 12, "Restoring data" on page 355 of the <i>Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide</i>).</p>                                                                                                                                                                                                                                                          |   |

## To move the swap file

**Note:** Perform this procedure if your swap file is on drive D.

- 1 Log on to Windows NT as Administrator.
- 2 In the Program Manager window, double-click Main.
- 3 In the Main window, double-click Control Panel.
- 4 In the Control Panel window, double-click System.

**Result:** The System dialog box appears.



- 5 On the System dialog box, click Virtual Memory.



| Drive | [Volume Label] | Paging File Size (MB) |
|-------|----------------|-----------------------|
| C:    | [MS-DOS 6]     |                       |
| D:    |                | 127 - 127             |

**Paging File Size for Selected Drive**

Drive: D:

Space Available: 2456 MB

Initial Size (MB): 127

Maximum Size (MB): 127

**Total Paging File Size for All Drives**

Minimum Allowed: 2 MB

Recommended: 107 MB

Currently Allocated: 127 MB

**Registry Size**

Current Registry Size: 2 MB

Maximum Registry Size (MB): 19

**Notes:**

- The drive specified in the Paging File Size for Selected Drive box is the drive on which the swap (paging) file resides.
    - If the specified drive is not drive D, you do not need to move the swap file. Click Cancel to close the Virtual Memory window and click Cancel to close the System Properties window.
    - If the specified drive is drive D, click Cancel to close the Virtual Memory window, and continue with the following steps.
  - The drives displayed on this dialog box vary depending on the hardware platform.
- 6 On the System dialog box, click Recovery.
  - 7 Ensure the Write debugging info to: check box is unchecked.
  - 8 Click OK.
  - 9 On the System dialog box, click Virtual Memory.
  - 10 In the Virtual Memory dialog box, select drive F, or the first available drive after drive D.
  - 11 Ensure that the selected drive has at least 288 Mbytes of available disk space. If not, repeat step 10 to select the next available drive.

**Notes:**

- If none of the drives have sufficient space, contact your Nortel Networks Customer Support representative.
- Use the selected drive only to store the database and the swap file. Do not store trace logs or other data on this drive.

**12** Type **268** for Initial Size and **268** for Maximum Size.

**13** Click Set.

**14** Select drive D.

**15** Enter 0 for Initial Size and 0 for Maximum Size.

**16** Click Set.

**Note:** If you see the following message, click OK:

If the pagefile on volume D has an initial size of less than 268 MB, then the system is unable to create a debugging information file if a STOP error occurs.

**17** Click OK to apply the changes.

**18** Click OK to close the System Properties window.

**Result:** The program prompts you to restart.

**19** Click Don't Restart Now (you will restart the server later), and continue with the following procedure.

**Note:** When you install the PEPs after the conversion, you install a PEP that ensures that alarms for the drive to which you moved the swap file do not sound unless free space falls below a predetermined level.

## Remove the TZ variable

The TZ Variable that was set on Symposium Call Center Server 1.5 Servers is no longer necessary. Remove this variable during the Symposium Call Center Server Release 1.5 to Release 4.0 conversion.

- 1** From the Start menu, select Settings -> Control Panel.
- 2** Double-click the System Icon.
- 3** Click the Environment tab.
- 4** Scroll to find TZ = xxxyyy in the System Variable.
- 5** Click Delete.
- 6** Click OK.
- 7** Exit the Control Panel and go to the next procedure To Uninstall pcAnywhere 8.0.

If the server has already been converted to Symposium Call Center Server Release 4.0, use this procedure to delete the TZ Variable during the next maintenance.

- 8** Shut down Symposium.

- 9 From the Start menu, select Settings -> Control Panel.
- 10 Double-click on the System Icon.
- 11 Click the Environment tab.
- 12 Scroll to find TZ = xxxyyy in the System Variable.
- 13 Click Delete.
- 14 Click OK.
- 15 Exit the Control Panel.
- 16 Reboot the system.

## To uninstall pcAnywhere 8.0

- 1 Log on to Windows NT as Administrator (or another user with administrator access).
- 2 Right-click the pcAnywhere Waiting icon on your desktop, and then select Close.
- 3 From the Program Manager, double-click pcAnywhere.
- 4 Double-click Remove pcAnywhere.
- 5 When the message pcAnywhere will be removed from the following directory appears, click Yes to continue.
- 6 Follow the instructions on the screen to uninstall pcAnywhere.
- 7 If the message The system indicates that the following shared file is no longer used by any programs appears, respond in one of the following ways:
  - For files in \Program Files\Common Files\Symantec\Shared\ folder, click Yes.
  - For files in the WINNT35\System32 folder, click No.
- 8 When the message Uninstall completed. Some elements could not be removed. appears, click OK.
- 9 When the message pcAnywhere has been uninstalled from your computer. Do you wish to reboot now? appears, select Yes to restart the server.

**Note:** If the server does not restart, you must restart it manually.

## To check your video adapter

To avoid problems during the operating system conversion, make sure that the video adapter installed on the server PC is a VGA-compatible Display Adapter. To check the adapter and change it, if necessary, follow these steps.

**Note:** The VGA-compatible Display Adapter driver is available on the Symposium Call Center Server Operating System CD for Release 1.5.

- 1 Log on to Windows NT as NGenSys.
- 2 In the Program Manager window, double-click Control Panel.
- 3 Double-click Display.

- 4 On the Display Settings dialog box, click Change Display Type.
- 5 On the Display Type dialog box, check the Adapter Type.  
**Note:** If your video adapter is not VGA-Compatible Display Adapter, follow these steps:
  - a. In the Adapter Type box, click Change.
  - b. Select VGA-Compatible Display Adapter and click OK.  
**Result:** A message appears: This operation will change your system configuration. Do you want to proceed anyway?
  - c. Click Yes.  
**Note:** If the message The driver(s) for this display are already on the system, appears click New to continue.  
**Result:** A message appears: Insert the CD you want to copy files from.
  - d. Insert the Symposium Call Center Server Release 1.5 Operating System CD and browse to the \i386 directory.  
**Result:** The program copies the driver to your system. A message appears, notifying you that the drivers have been updated.
- 6 Click OK to exit the control panel.
- 7 When prompted, click OK to restart the server PC.  
**Result:** After restart, the system prompts you to change the display resolution.
- 8 Click OK.
- 9 Repeat steps 1 to 4 to view the Display Type window.  
**Result:** The adapter type listed should be VGA-Compatible Display Adapter.
- 10 Click Cancel twice to exit from the control panel.

## To ensure that sufficient disk space is available

- 1 Log on to Windows NT with the username **NGenSys** and the password **\_\_ngen!**
- 2 In the Program Manager window, double-click Main.
- 3 In the Main window, double-click File Manager.
- 4 Select drive D.
- 5 Check the status bar at the bottom of the File Manager window to find out how much disk space is free.  
  
Drive D must have at least 256 Mbytes available. If it does not, delete unnecessary files, such as trace and log files.

## To perform the preconversion

- 1 Ensure that the server is fully functional and that all services are up and running, and then exit SMonW.

- 2 Open the SysOps Utilities folder, and double-click SysOps Check.
- 3 Follow the instructions on the screen.

**Note:** If the utility reports any errors (such as a site name that contains spaces), correct them before continuing.

- 4 Insert the Symposium Call Center Server Release 4.0 Server Application CD into the CD-ROM drive, or map a connection to the related virtual CD.
- 5 In the Program Manager window, double-click Main.
- 6 In the Main window, double-click File Manager.
- 7 Click on the CD-ROM drive icon (drive E).
- 8 Double-click setup.exe.

**Result:** The Conversion window appears.

- 9 Click Begin Conversion.

**Result:** A window appears to remind you that no other applications can be running.

- 10 Close any active applications running on the server, including screen savers, and then click Yes to begin the preconversion.

**Caution:** Risk of data loss. The preconversion can take up to three hours, depending on the size of your database. Do not stop the conversion manually. If you stop the conversion, restore Symposium Call Center Server 1.5 and begin the conversion again. For more information on restoring, refer to the Release 1.5 *Backup and Restore Instructions*.

**Note:** The following message appears: The run-time of the Pre-Conversion Utility is dependent on the database size. Pre-Conversion will take AT LEAST 1 hour to complete. Please wait and don't attempt to stop the Pre-Conversion manually while Pre-Conversion is running. Click 'OK' to start Pre-Conversion.

- 11 Click OK.

**Attention:** If Dr. Watson displays Error code 87 while shutting down services, click OK and ignore these error messages. They do not impact the preconversion.

The preconversion begins, and a progress bar appears. The preconversion process takes at least one hour to complete. *Do not* run any operations or open any windows while the Pre-Conversion is running. If you do this, it blocks the Pre-Conversion dialog box with the status indication, and the status takes some time to be refreshed.

- 12 When the message PreConversion Complete... appears, click OK.

## To upgrade from Windows NT 3.51 to Windows NT 4.0

**Note:** You can get a list of compatible drivers from your regional Symposium Call Center Server technical web site.

- 1 Insert the Symposium Call Center Server Release 4.0 Operating System CD Version 1.0 into the CD-ROM drive and the WinNT 4.0 OS Setup Boot Disk #1 into drive A.
- 2 In the Program Manager window, choose File Shutdown >Shutdown & Restart.
- 3 After the server restarts, follow the instructions on the screen.
- 4 When the message Please insert the disk labeled Windows NT Server Setup Disk #2 into Drive A: appears, insert the Windows NT Server Setup Disk #2 into Drive A, and then press Enter.
- 5 When the message Welcome to Setup. The Setup program... appears, press Enter to set up Windows NT.
- 6 When the message Setup automatically detects floppy disk controllers and standard ESDI/IDE hard disks without user intervention appears, type **S** to skip the mass storage device detection.
- 7 To install the IDE CD-ROM driver, follow these steps:
  - a. Type **S** to specify additional SCSI adapters, CD-ROM drivers, or special disk controllers.  
**Result:** A list of controllers appears. Use the up and down arrow keys to view the complete list.
  - b. Scroll through the list of controllers, select IDE CD-ROM (ATAPI 1.2)/ PCI IDE Controller, and press Enter.
  - c. When the message Please insert the disk labeled Windows NT Server Setup Disk #3 into Drive A:... appears, insert the Windows NT Server Disk #3 into Drive A, and then press Enter.
- 8 To install other drivers, such as RAID or SCSI drivers, follow these steps:
  - a. Type **S** to select additional SCSI adapters, CD-ROM drivers, or special disk controllers.  
**Result:** A list of controllers appears. Use the scroll bars to view the complete list.
  - b. Select Other (Requires disk provided by a hardware manufacturer), and then press Enter.
  - c. Insert the disk containing the device drivers, and then press Enter.  
**Example:** For a 1003t RAID system, you insert disk number NTRH8036.  
**Note:** Make sure you choose the correct drivers for your hardware platform.
  - d. Select the mass storage device that you want, and then press Enter.  
**Example:** For a non-1003t RAID system, select Mylex DAC 960.
- 9 If necessary, repeat step 8 to install additional SCSI drivers.
- 10 When the message Setup has recognized the following mass storage devices in your computer: appears, press Enter to continue setup.
- 11 When the message Please insert the disk labeled Windows NT Server Setup Disk #3 into Drive A: appears, insert the Windows NT Server Disk #3 into Drive A, and then press Enter.

**Note:** If the setup program detects that one or more of the hard disks in the system has more than 1024 cylinders, a warning message appears. Press Enter (do not press N) to continue.

- 12 When the message Windows NT Licensing Agreement appears, press the Page Down key and read the entire agreement. Then, to accept the agreement, press F8 to continue the setup.
- 13 When the message Setup has found Windows NT on your hard disk in the directory shown below. appears, press Enter to upgrade Windows NT in the specified directory.

**Note:** Some WINNT35 directories might use a different drive letter.

- 14 When the message Setup will now examine your hard disk(s) for corruption appears, press Enter to allow Setup to perform an exhaustive secondary examination of your hard disks.

**Result:** Setup copies files to your hard disk.

- 15 When prompted, insert the disk into drive A, and then press Enter.
- 16 If the message Setup has determined that the following file did not originate from Microsoft:... appears, press Esc after each message to keep the original third-party file.
- 17 When the message This portion of Setup has completed successfully. If there is a floppy disk inserted in drive A:, remove it appears, remove the disk from drive A and the Symposium Call Center Server Release 4.0 Operating System CD Version 1.0 from the CD-ROM drive.
- 18 Press Enter to restart the server. When your computer restarts, Setup continues.

**Attention:** If you did not uninstall pcAnywhere, an error message Missing DISPLAY\_DRIVER.DLL appears. If this happens, restore Symposium Call Center Server 1.5, uninstall pcAnywhere, and begin the conversion process again. For information on restoring Release 1.5, refer to the Symposium Call Center Server 1.5 *Backup and Restore Instructions*.

- 19 Insert the Symposium Call Center Server Release 4.0 Operating System CD Version 1.0 into the CD-ROM drive again, and continue the setup after restart by following the screen instructions.
- 20 When the message Welcome to the Windows NT Setup Wizard, which will guide you through the rest of Setup. To continue, click Next appears, click Next.
- 21 At the prompt Please locate your 20 digit 'Product ID', type in the Windows NT 4.0 OS Product ID, located on the Certificate of Authenticity, and click Next.
- 22 When the message Setup can create an emergency repair disk appears, select No, do not create an emergency repair disk, and then click Next.
- 23 When the message Windows NT comes with a variety of optional components, including games, disk tools, and other accessories appears, select Install the most common components (recommended), and then click Next.

- 24 When the message Setup is now ready to guide you through installation of Windows NT Networking appears, click Next to continue.
- 25 When the message Windows NT will now upgrade your network components appears, click Next to continue.

**Notes:**

- If the message The following non-Microsoft networking component is installed on this computer appears, click OK. The specified component might be a 3COM or Intel component.
  - If you see an application error message, record the message and click OK to continue.
- 26 When the message Setup is almost finished. After you answer a few more questions... appears, click Finish to complete the setup.

**Result:** Completion of setup takes from 5 to 10 minutes.

**Note:** If messages regarding unsupported components appear, then click OK to continue.
  - 27 When the message Windows NT has been successfully upgraded to version 4.00... appears, remove the CD from the CD-ROM, and then click Restart Computer to restart the server.

**Note:** If the message missing config.exe appears, then click Cancel to continue.

## To install Windows NT Server 4.0 Service Pack 6A

- 1 Log on to Windows NT as Administrator.
- 2 Insert the Symposium Call Center Server Release 4.0 Platform Support CD Version 1.0 into the CD-ROM drive. (Currently, Symposium Call Center Server supports only Service Pack 6A.)
- 3 If the Windows NT Setup splash screen appears, click Close to close the screen.
- 4 From the Start menu, choose Programs >Windows NT Explorer.

**Result:** The Windows NT Explorer screen appears.
- 5 Click the plus sign (+) next to the CD-ROM drive to display its subdirectories.
- 6 Select the directory containing the Service Pack (E:\Service Pack 6A\US-40bit, where E is your CD-ROM drive).
- 7 Run Sp6ai386.exe and follow the screen instructions.
- 8 When the message Welcome to Service Pack 6 Setup appears, select Accept the Licence Agreement, and then click Install to install the Service Pack on your computer.
- 9 When the message Windows NT 4.0 Service Pack installation is complete appears, select Restart to restart the computer.

**Result:** The computer restarts.



## To remove Microsoft Internet Information Server

- 1 If Microsoft Internet Information Server (IIS) is installed automatically during the operating system conversion, go to Start > Programs > Microsoft Internet Server (Common), and then choose Internet Information Server Setup to remove IIS.
- 2 When the IIS welcome dialog box appears, click OK.
- 3 When the IIS Installation Maintenance program appears, click Remove All to remove previously installed components.
- 4 When the message Are you sure that you want to remove all the IIS components appears, click Yes to continue.
- 5 When the message Microsoft FTP Publishing Service is running. Do you want to stop the service? appears, click Yes.
- 6 When the message Microsoft Internet Information Server 3.0 setup has updated successfully appears, click OK to complete the removal of IIS.

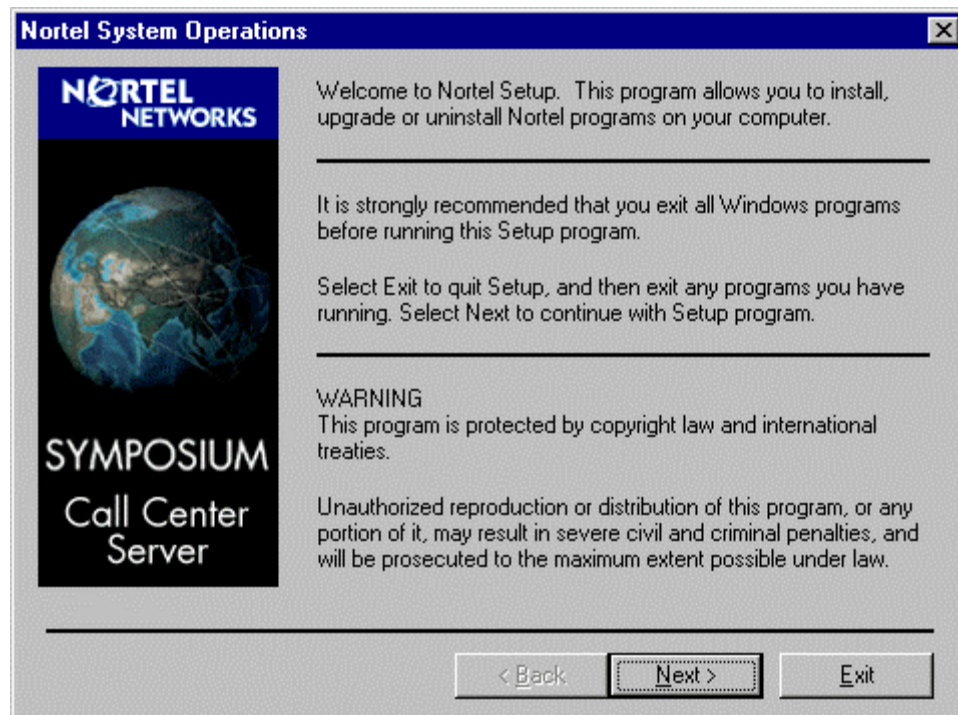
## To install the DMI

- 1 Log on to Windows NT as Administrator.
- 2 Insert the Symposium Call Center Server Application CD into the CD-ROM drive or map a connection to a virtual CD.
- 3 Exit all applications, including screen savers, and close all windows.
- 4 From the Windows Start menu, choose Run.
- 5 Click Browse, select Setup.exe from the root directory on the CD, and click OK.  
**Note:** The Welcome screen can take several minutes to display.
- 6 Click OK to run.

**Result:** The program displays the message Setup determines that DMI is not installed on your system. Do you want Setup to install DMI?

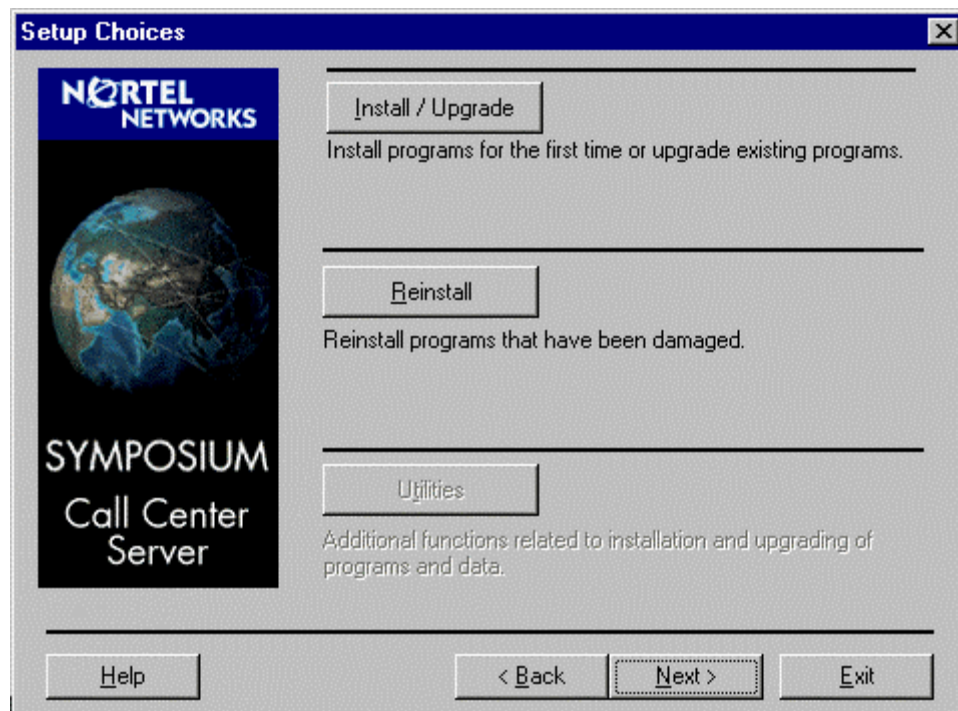
- 7 Click Yes to install the DMI. (If you click No, the installation stops.)

**Result:** The DMI installs and the Nortel System Operations welcome dialog box appears.



- 8 Click Next.

**Result:** The Setup Choices dialog box appears.



- 9 Click Install/Upgrade.

**Note:** If a warning message appears because drive D has less than 512 Mbytes free, click Yes to continue.

**Result:** Setup copies files to the server, and then the User Information dialog box appears.

- 10 Make sure that the customer and company names are correct, and then click Next.

**Result:** The program installs the software and displays the message Setup is about to reboot the system. Please continue installation after reboot.

- 11 Click OK.

**Result:** The system restarts and logs on again automatically.

## Installing Symposium Call Center Server 4.0 software

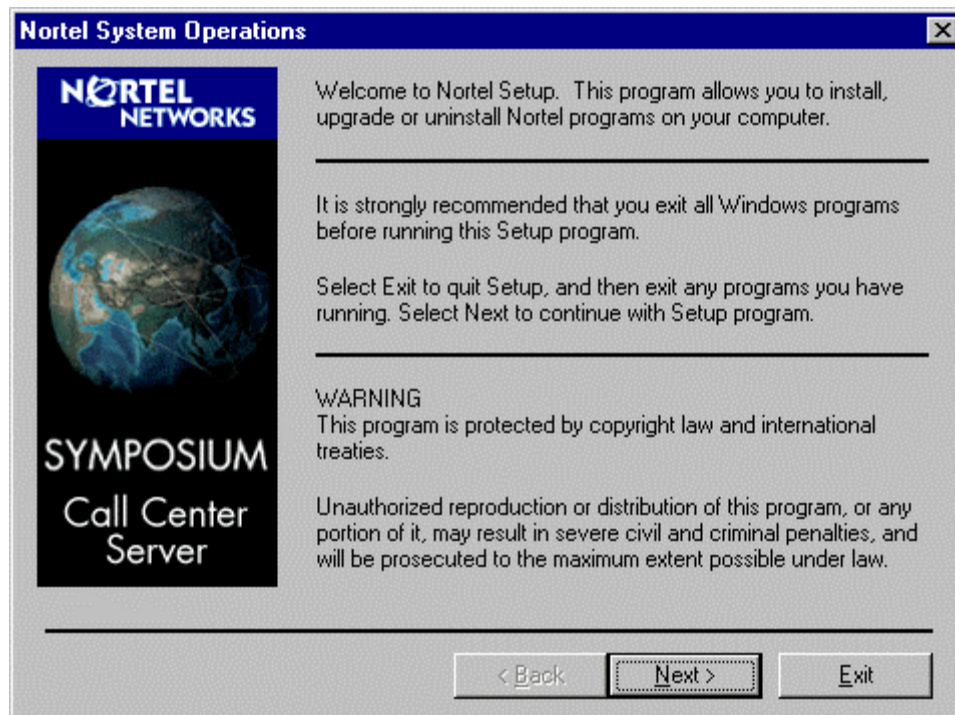
### Keycode requirements for conversion to Symposium Call Center Server 4.0

If you want to add on additional software features when you convert the server to Release 4.0, you can obtain a new keycode that includes the new features and use this keycode when you configure the Release 4.0 server. Therefore, you can perform a s/w upgrade (conversion) and expand features in one step, using just one new keycode.

### To install Symposium Call Center Server 4.0

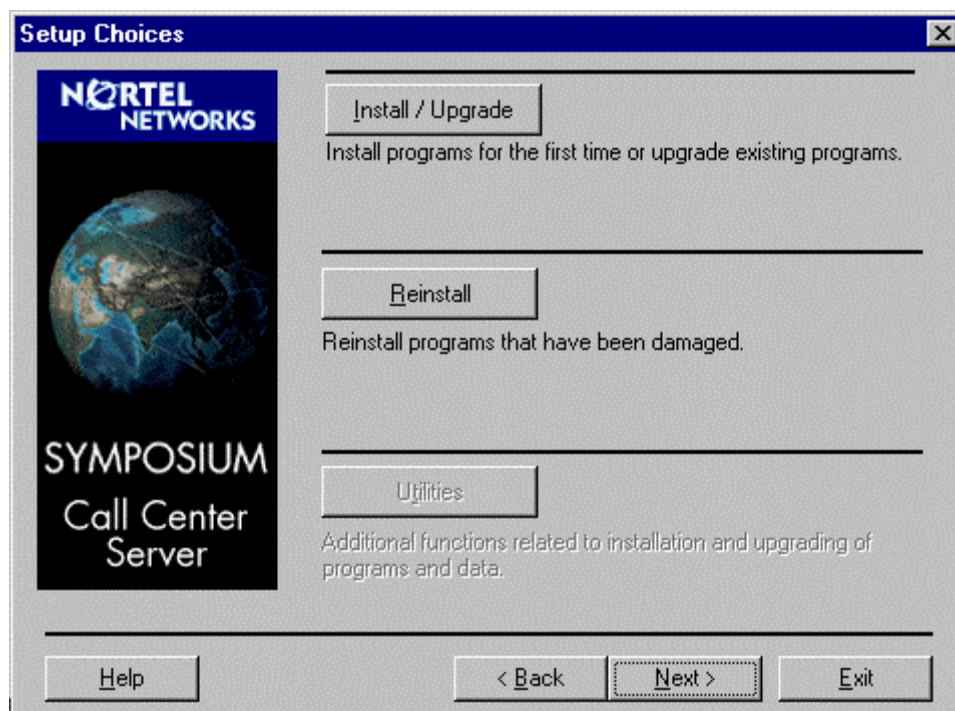
- 1 Exit all applications, including screen savers, and close all windows.
- 2 From the Windows Start menu, choose Run.
- 3 Click Browse, and then select Setup.exe from the root directory on the Server Application CD.
- 4 Click OK to run.

**Result:** The Nortel System Operations welcome dialog box appears.



- 5 Click Next.

**Result:** The Setup Choices dialog box appears.

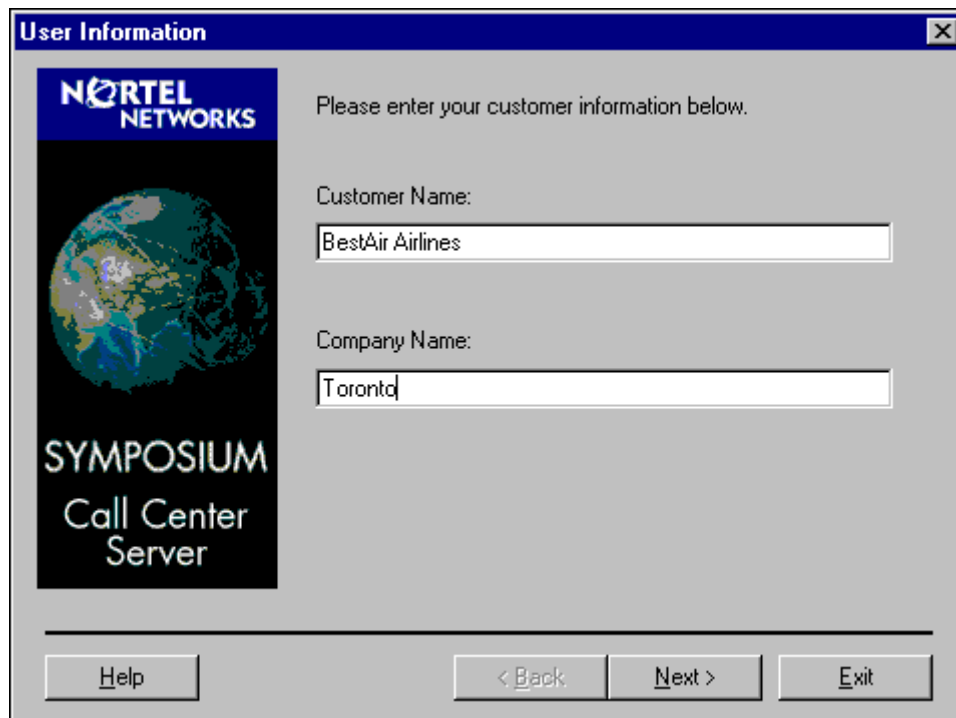


- 6 Click Install/Upgrade.

**Note:** If the following message appears, then click Yes to continue:

Setup has found out that this drive "C:\\" has less than 64 Mbytes of free space. Do you still want to continue?"

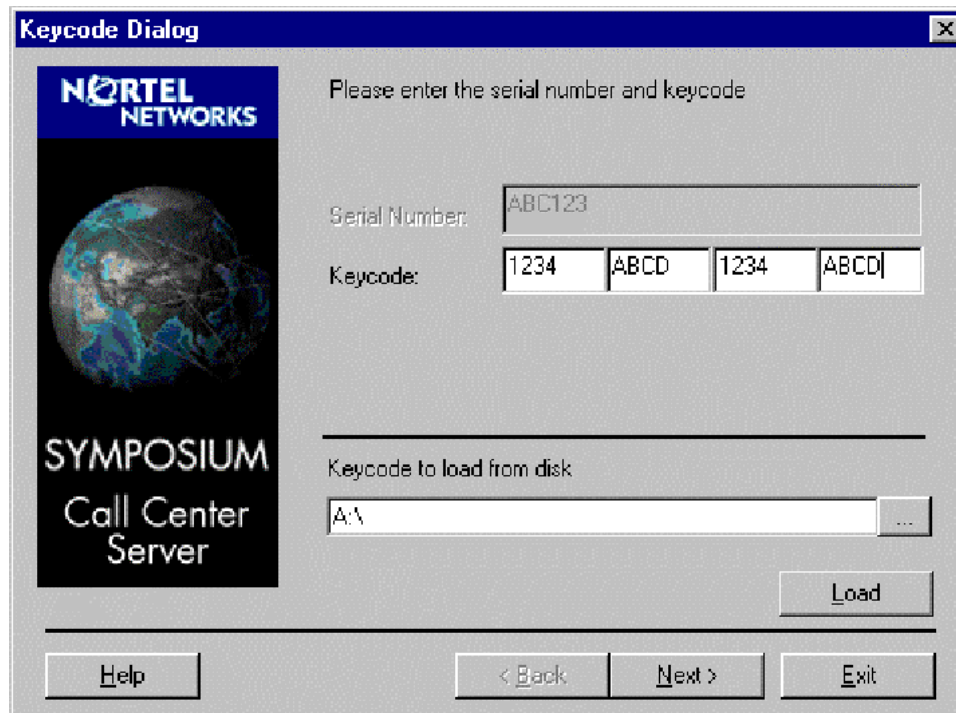
**Result:** Setup copies files to the server, and then the User Information dialog box appears.



The "User Information" dialog box features the Nortel Networks logo and a globe graphic on the left, with the text "SYMPOSIUM Call Center Server" below it. The main area contains the instruction "Please enter your customer information below." and two text input fields: "Customer Name:" with the value "BestAir Airlines" and "Company Name:" with the value "Toronto". At the bottom, there are three buttons: "Help", "< Back", and "Next >", and an "Exit" button on the far right.

- 7 Make sure that the customer and company names are correct, and then click Next.

**Result:** The Keycode Dialog box appears.



The "Keycode Dialog" box features the Nortel Networks logo and a globe graphic on the left, with the text "SYMPOSIUM Call Center Server" below it. The main area contains the instruction "Please enter the serial number and keycode". It includes a "Serial Number:" field with the value "ABC123" and a "Keycode:" field divided into four sub-fields containing "1234", "ABCD", "1234", and "ABCD". Below these is a section titled "Keycode to load from disk" with a text field containing "A:\\" and a browse button "...". A "Load" button is positioned to the right of the text field. At the bottom, there are three buttons: "Help", "< Back", and "Next >", and an "Exit" button on the far right.

- 8 Enter the keycode for Release 4.0 in one of the following ways and then click Next.

- If you have a disk that contains your keycode information, follow these steps:
  - a. Insert the keycode disk into the floppy drive.
  - b. Click the (...) button to open a browse dialog box.
  - c. Locate and select the file that contains the keycode information and click Load.

**Result:** The keycode and serial numbers are entered into the Keycode Dialog box.

- If your keycode information is stored on a hard disk, follow these steps:
  - a. Click the (...) button to open a browse dialog box.
  - b. Locate and select the file that contains the keycode information and then click Load.

**Result:** The keycode and serial number are entered into the Keycode Dialog box.

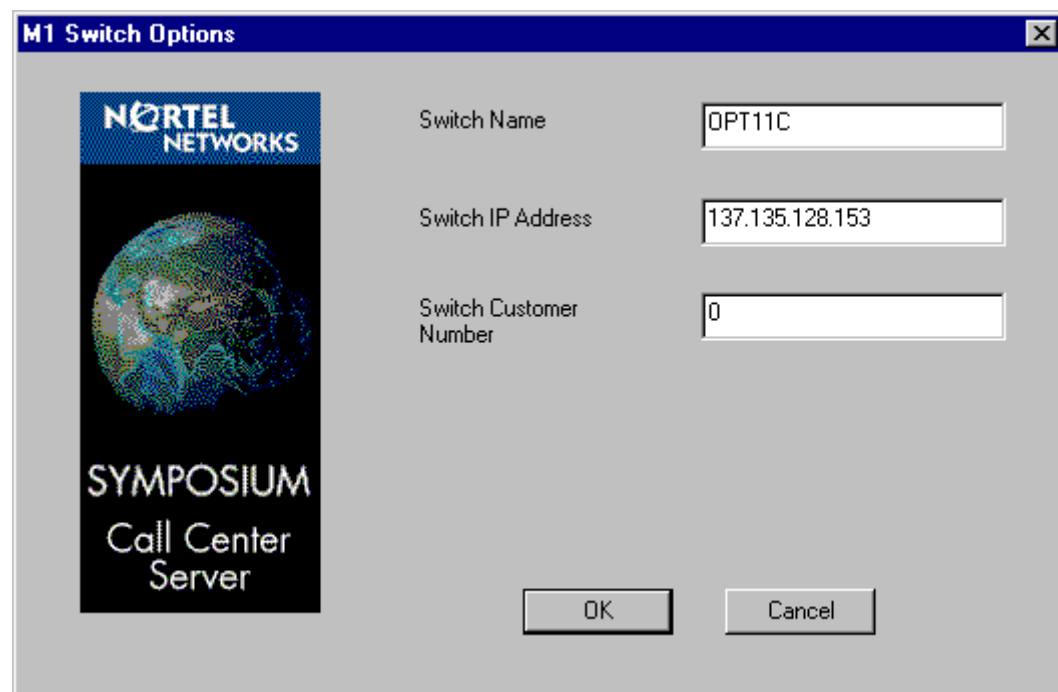
- Type your keycode in the appropriate boxes.

**Result:** The Verify Keycode Information dialog box appears.

- 9 Check that all keycode information is correct. If it is not correct, then click Back to change it (go to step 8). Otherwise, click Next.

- 10 Click Next.

**Result:** The M1 Switch Options dialog box appears.



The screenshot shows a Windows-style dialog box titled "M1 Switch Options". On the left side, there is a logo for "NORTEL NETWORKS" above a graphic of a globe, with the text "SYMPOSIUM Call Center Server" below it. On the right side, there are three labeled input fields: "Switch Name" containing "OPT11C", "Switch IP Address" containing "137.135.128.153", and "Switch Customer Number" containing "0". At the bottom right, there are two buttons: "OK" and "Cancel".

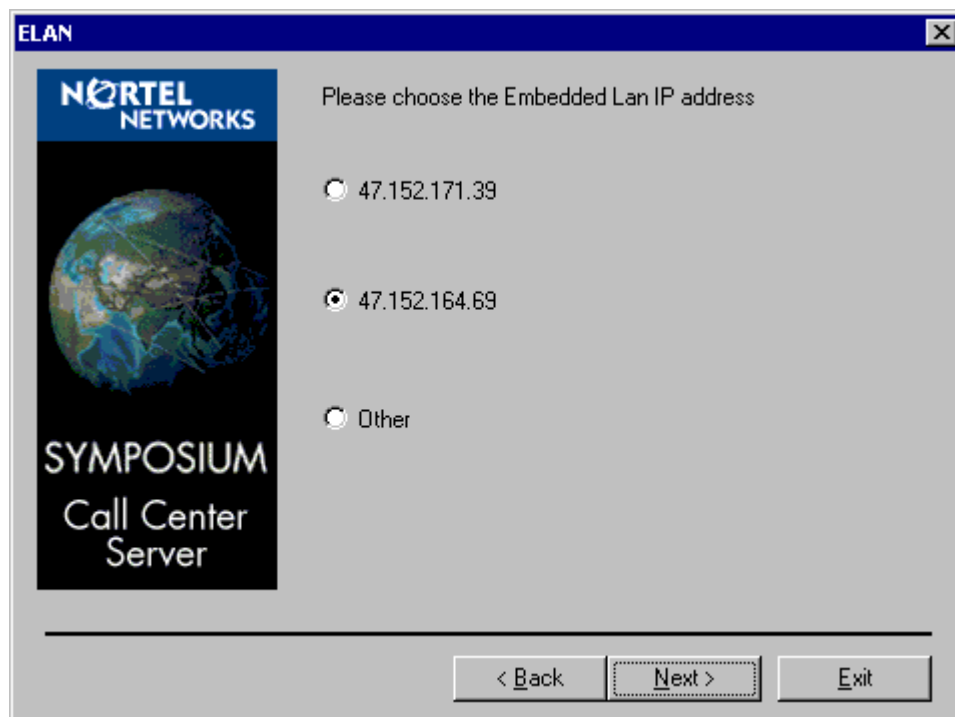
- 11 Enter the appropriate information for your switch. Refer to the information you entered in Appendix A, "Worksheets" on page 503 of *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide* and to the following restrictions that apply to switch names:

- Valid characters for switch names are A–Z, a–z, 0–9, \_ (underscore) and. (period).
- Switch names must begin with an alphabetic character, and they cannot contain spaces.
- The last character must not be an underscore or a period.
- Switch names must not exceed 80 characters in length.

**Tip:** If you are unsure of the correct information or if you make a mistake, you can change the switch information after you finish the installation (see “Feature Report” on page 453 of the *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*).

**12** Click Next.

**Result:** The ELAN dialog box appears.

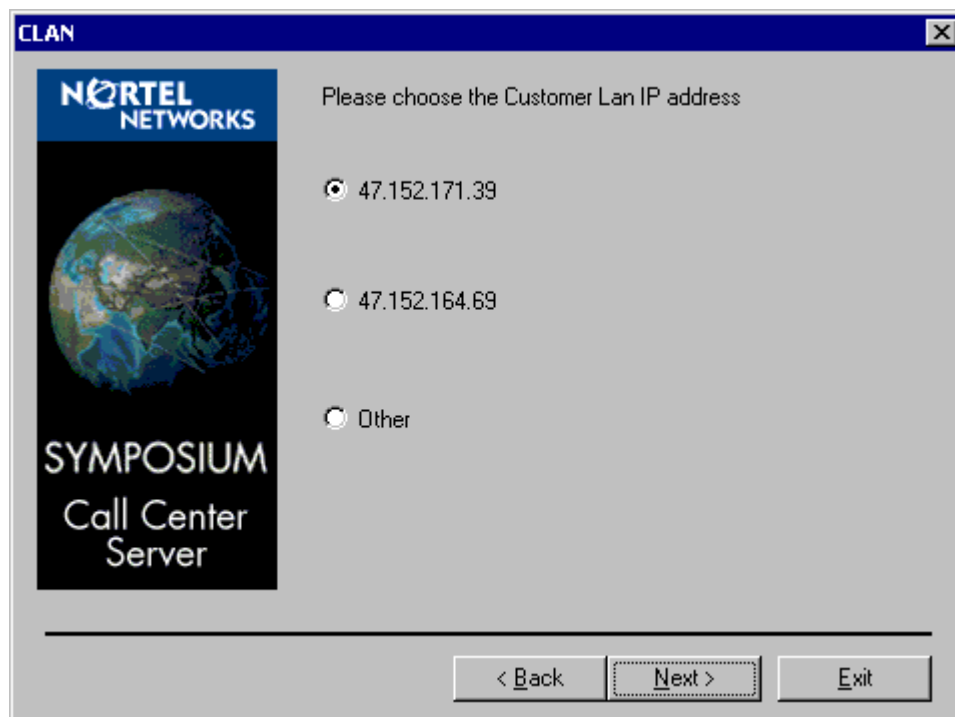


**13** Enter the ELAN TCP/IP address for the server in one of the following ways, and then click Next:

- If the address appears in the dialog box, select it.
- If the ELAN TCP/IP address does not appear in the dialog box, select Other, and enter the correct IP address in the dialog box that appears.
- If you are configuring a Network Control Center server, you do not need to connect the ELAN network interface card to the ELAN cable. However, to ensure proper functionality, enter an IP address for the ELAN network interface card that is not used elsewhere in the network.

**Attention:** If your NCC server has only one network interface card, enter the CLAN address for both the ELAN prompt and the CLAN prompt.

**Result:** The CLAN dialog box appears.

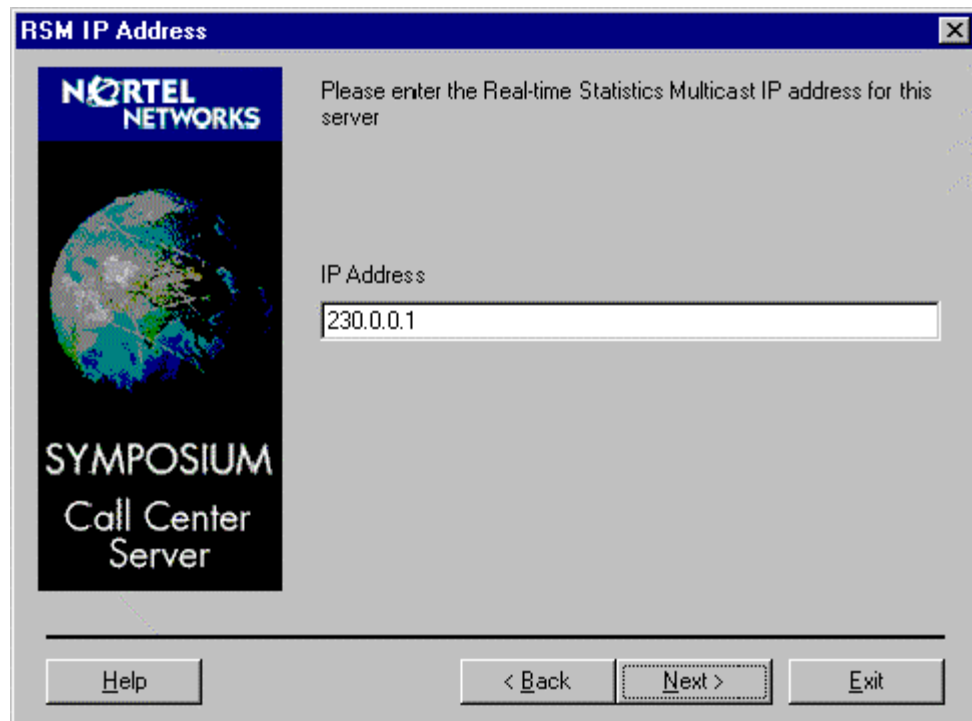


**14** Enter the CLAN TCP/IP address for the server in one of the following ways, and then click Next.

- If the address appears in the dialog box, select it.
- If the CLAN TCP/IP address does not appear in the dialog box, select Other, and enter the correct IP address in the dialog box that appears.

**Result:** If the optional RSM feature is enabled for your server, the RSM IP Address dialog box appears. Continue with the following step. If this feature is not enabled, the Verify Setup Information dialog box appears. Skip to step 16.





- 15 Enter the IP multicast address of the RSM server (the server to which the Symposium Call Center Servers in your network send real-time statistics), and click Next.

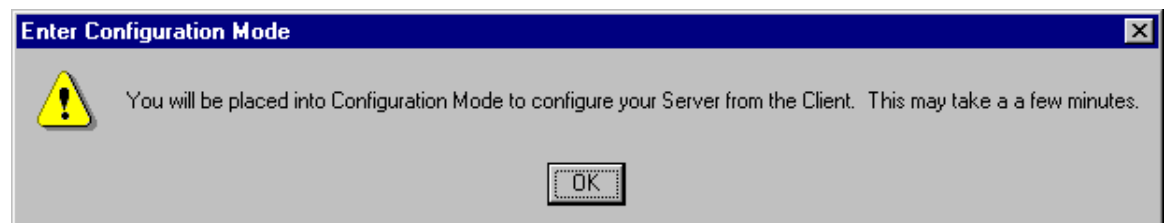
**Note:** If you are using RSM applications, the IP address you choose must match the IP multicast address (for more information, see Chapter 14, “Installing and configuring Real-time Statistics Multicast” on page 467 of the *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*). If you are not using RSM applications, use the default that appears in the box.

**Result:** The Verify Files dialog box appears.

- 16 Examine the list of current settings. If they are incorrect, click Back and make the necessary corrections. Otherwise, click Next.
- 17 Click Next.

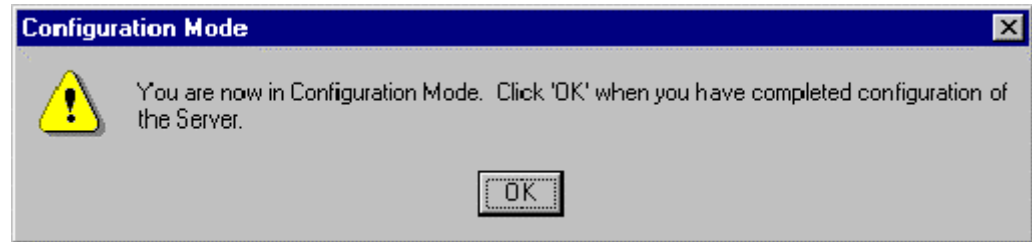
**Result:** Any existing patches on the system are uninstalled; the program begins to copy files to the hard drive and a progress bar appears. The program automatically fills dialog boxes. The keyboard and mouse are disabled during this portion of the setup.

When this step is completed, the Enter Configuration Mode message appears.



- 18 Click OK.

**Result:** The setup program validates scripts and puts the server into configuration mode.



- 19 Click OK to finish the conversion.

**Result:** The program prompts In order to recover the Symposium Call Center Server from catastrophic failure or to migrate to a difference platform using the database tape, the Platform Recovery disk must be available....

- 20 Click Yes.

**Attention:** If you click No, the program prompts You have selected not to create the Platform Recovery disk at this time.... Remember to use the Migration utility to create a Platform Recovery disk when the installation is complete. (For more information on the migration utility, (For more information on the migration utility, see "Migration" on page 458 of the *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*). Skip to step 27.

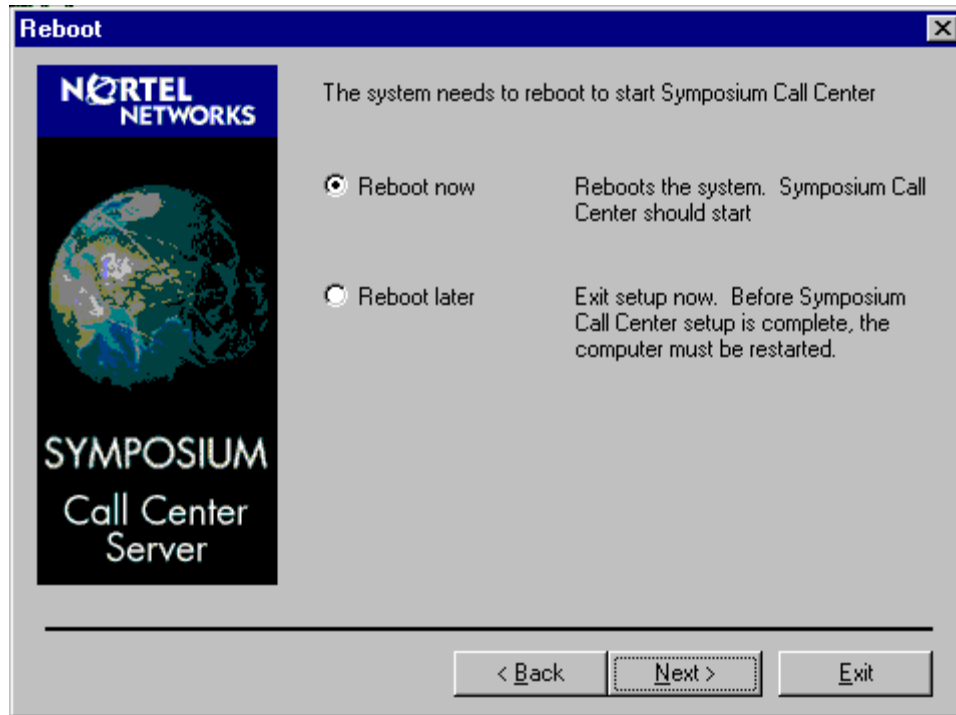
**Result:** The program prompts Label a floppy disk "Platform Recovery Disk" and insert it into drive A:.

- 21 Insert a blank formatted disk in the floppy drive, and then click Yes.

**Result:** The program prompts The Platform Recovery disk has been successfully created....

- 22 Click OK, remove the disk, label it "Platform Recovery Disk (R4.0)," and store it in a safe place.

**Result:** The Reboot dialog box appears.



- 23 Select Reboot later, and then click Next.
- 24 Open a Command window by choosing, from the Windows Start menu, Programs > Command Prompt.
- 25 In the Command window, make drive D the current drive by typing d: and pressing Enter.
- 26 Change to the bin directory by typing the following command and pressing Enter:  
**cd\Nortelliccm\bin\**
- 27 Type the following command and press Enter:  
**serman manual**
- 28 Do not restart the server now. Continue with the next section, [To change the video drivers](#), in this document.

## To change the video drivers

**Note:** The video driver for the 1003t platform is on the HP NetServer Navigator CD. Video drivers for other platforms are on the Symposium Call Center Server Release 4 Platform Support CD. For more information about your video driver, check your regional Symposium Call Center Server technical web site. Refer to the manufacturer's documentation for drivers not supplied by Nortel Networks.

- 1 Open the Control Panel (from the Windows Start menu, choose Settings Control Panel).
- 2 Double-click Display.
- 3 Click the Settings tab.
- 4 Click Display Type.

**Result:** The Display Type window opens.

- 5 If you are using a 1003t platform, follow these steps. If you are using a 701t, 702t, 1000t, or 1001t platform, go to step 6.

- a. In the Adapter Type group box, click Change.

**Result:** The Change Display dialog box appears.

- b. Insert the HP NetServer Navigator CD.
- c. If the HP NetServer Diskette Library opens, click Exit.
- d. In the Change Display dialog box, click Have Disk.

**Result:** The Install from Disk dialog box appears.

- e. Browse to E:\periph\cl54x2\nt40\video (where E: is your CD-ROM drive).
- f. Click OK.

**Result:** A dialog box displaying available drivers appears.

- g. Select the Cirrus Logic driver and click OK.

**Note:** If the message You are about to install a third-party driver appears, click Yes to continue.

**Result:** The driver is copied to your system. A message appears, notifying you that the driver has been installed.

- 6 If you are using a 701t, 702t, 1000t, or 1001t platform, follow these steps. If you are using a 1003t platform, go to step 7.

- a. Insert the Symposium Call Center Server Release 4.0 Operating System CD, Version 1.0.
- b. In the Display Type dialog box, click Detect.

**Result:** A warning message appears.

- c. Click Yes to proceed with detection.

**Result:** The driver is copied to your system. A message appears, notifying you that the driver has been installed.

- 7 Click OK.

- 8 Click Close to close the Display Type dialog box.

- 9 Click Close to close the Display Properties dialog box.

**Result:** The system prompts you to restart the server PC.

- 10 Click Yes.

- 11 If your platform is not a 1003t, the system displays a message that the system found the Cirrus Compatible Display Adapter on your machine. Click OK.

- 12 When the system prompts you to change the display resolution, click OK.

- 13 Repeat steps 1 to 4 to view the Display Type window.

**Result:** For the 1003t platform, the adapter type listed should be Cirrus Logic CL-GD5446 Graphics Adapter 1.41. For all other platforms, it should be cirrus compatible display adapter.

- 14 Click Cancel twice to exit from the control panel.

## Installing and configuring pcAnywhere version 9.2

**Attention:** Risk of system failure. Make sure that before you reinstall pcAnywhere, the proper video driver for your platform is installed (see the preceding procedure). Failure to do so can result in the appearance of a blue screen after pcAnywhere version 9.2 installation or after use of pcAnywhere for operations such as file transfer.

Install and configure the pcAnywhere software, following the instructions in Chapter 3, “Installing and configuring pcAnywhere” on page 95 of the *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*.

## Checking for PEPs and Service Update packs

Extract and install the latest available software PEPs and Service Update packs now. For more information, see “Overview” on page 116 of the *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*.

## To create an emergency repair disk

- 1 Log on to Windows NT as Administrator, using password abc123.
- 2 From the Windows Start menu, choose Run.
- 3 Type **rdisk /s** and click OK.
- 4 When prompted, insert a blank floppy disk into drive A to create the emergency repair disk, and follow screen instructions. For more information on updating the emergency repair disk, see “Updating the emergency repair disk” on page 65 of the *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*.

## To enable RSM (optional)

If you installed RSM on your server, you must enable the RSM service to provide moving window and interval-to-date statistics for multicast real-time displays. For instructions on enabling RSM, see “Modifying Real-time Statistics Multicast settings” on page 471 of the *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*.

## To configure SNMP (optional)

If you are using the Windows NT SNMP service to forward traps to an NMS, you must perform these tasks:

- Configure the Windows NT SNMP service on the server (see “To configure the Windows NT SNMP service to forward traps to an NMS” on page 305 of the *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*).

- Select the types of events to be forwarded to the NMS (see “To select the types of events to be forwarded” on page 306 of the *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*).
- Configure the NMS (see “Configuring the NMS” on page 307 of the *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*).

## Backing up the server

Create a database backup (see Chapter 11, “Backing up data” on page 309 of the *Networks Symposium Call Center Server Software Installation and Maintenance Guide*).

## Ensuring that Symposium Call Center Server services are started

If you can see the SMonW window, check that all of the services are started. If this window is not open, or if some services are not started, then run the Startup utility (from the Windows Start menu, choose Programs > Symposium Call Center Server >Startup).

If the TFE service does not start up, the syntax in one or more of your scripts is invalid. Validate your scripts (see the *Scripting Guide*).

## Converting the client PC

Go to “Converting the client from a previous release to Release 4.0” on page 259 of the *Networks Symposium Call Center Server Software Installation and Maintenance Guide* and begin the client PC conversion.

## Rebuilding the RAID drives

If you have split the RAID drives, rebuild the RAID drives when you are confident of the conversion and server operation. For more information, see Chapter 12, “Restoring data” on page 355 of the *Networks Symposium Call Center Server Software Installation and Maintenance Guide*.

## If you must restore the Symposium Call Center Server Release 1.5

You can restore your Symposium Call Center Server Release 1.5 system in one of the following ways:

- For non-RAID systems, use the platform recovery disk and database restore. Refer to the Release 1.5 *Backup and Restore Instructions*.
- For RAID systems, follow the procedure for recovering an entire RAID system in Chapter 12, "Restoring data" on page 355 of the *Networks Symposium Call Center Server Software Installation and Maintenance Guide*.

## Section 2: Platform Vendor Independence (PVI)

### Overview

This section provides additional information on the Symposium Call Center Release 4.0 Platform Vendor Independent (PVI) feature. It supplements information in and should be read in conjunction with:

- *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*
- *Nortel Networks Symposium Call Center Server Platform Vendor Independence Base Configuration Guide*, and
- *Nortel Networks Symposium Call Center Server Platform Migration Guide*.

This section covers the following topics:

- Minimum hardware specifications
- Microsoft compatibility
- Backups and disaster recovery
- Solution redundancy
- Third party software
- Anti-virus software
- Uninterruptible power supply
- Server engineering
- Windows NT operating system
- Upgrades and migrations
- Disk partitions
- Technical support
- PVI servers tested by Nortel Networks

### Introduction

For the Symposium Call Center Server Release 4.0 Platform Vendor Independence (PVI) solution to operate properly, the PVI server must:

- comply with the minimum hardware specifications.
- be included in Microsoft's Compatibility List for Windows NT 4.0  
<http://www.microsoft.com/hcl/default.asp>



- comply with all other guidelines specified in this document

## Server support contract

Nortel Networks recommends that the support contract for the PVI server hardware is with the server vendor and not Nortel Networks. Nortel Networks do not provide technical support for PVI servers.

## Pre-installation tests

The distributor must ensure that the hardware platform is operational and properly prepared prior to installation of the Symposium Call Center Server software.

The distributor/end user should also ensure that testing of a PVI server is carried out before putting the server into live operation in a customer environment. The distributor/end user should rule out hardware faults before escalating issues to Nortel Networks. During problem diagnosis, Nortel Networks GNTS may require test reports for PVI hardware, or the removal of software as part of the fault investigation process.

## Minimum hardware specifications

For the Symposium Call Center Server Release 4.0 PVI solution to operate properly, the customer-supplied server must meet the following minimum requirements:

- Intel-based CPU-Pentium II 300 MHz in a single or dual CPU configuration  
**Note:** Quad CPU is not supported.
- 256 Mbytes of RAM memory  
**Note:** Higher RAM is supported providing partitioning takes into account the larger swap file.
- 9 GB minimum disk space
- hard disks correctly partitioned see [Symposium Call Center Server Release 4.0 PVI Server – Guideline for Creating Database Partitions](#) in this document.
- SCSI Controller
- one floppy drive, drive letter designation must be A:\.
- CD-ROM, drive letter designation must be E:\.
- 2 serial (RS232) ports physically configured as COM1 and COM2, with Base I/O Port Address field values of 3F8 and 2F8, and the IRQ fields set to 4 and 3 respectively.
- 1 parallel port. This must be physically configured on the server, and enabled through the BIOS.
- 1 Ethernet network interface card (for the ELAN)
- 1 Ethernet (or token ring) network interface card (for the CLAN)
- Video card and Monitor (800x600 minimum resolution)

- Keyboard
- Mouse
- External modem, minimum speed 33.6 kbps
- Backup tape drive

**Note:**

- The specifications above are the MINIMUM specifications required. Enhanced performance can be expected through larger RAM and faster, dual processors, while higher fault tolerance can be achieved through RAID hotswap drives, Redundant and hot-swap Power Supplies and fans and hot-swap Network Interface Cards.
- If additional hardware is provided, such as Comm ports 3 & 4, please ensure that they are configured correctly, make sure that IRQs do not conflict with existing IRQs. Any further troubleshooting & hardware diagnostics are the responsibility of the hardware vendor.

## Microsoft Compatibility List

The PVI server must be included in the Microsoft Compatibility List for Windows NT Server 4.0. For more information, refer to <http://www.microsoft.com/hcl/default.asp>.

## Backup and disaster recovery

There are several methods of ensuring maximum uptime of the Symposium Call Center Server. These involving critical system operations such as system backups, and selecting hardware platforms that offer optimum fault tolerance (i.e. RAID).

If you wish to maximize your uptime, you will need to:

- select fault-tolerant hardware (e.g. RAID) for you system
- perform system backups so that you can recover quickly after a failure.

## Backup software

Full offline backups in Symposium Call Center Server Release 4.0 should be performed using a third-party backup utility. Database online backups are performed using the Symposium Call Center Server backup utility.

## Backup tape

A tape drive for backing up and restoring data is a minimum system requirement. The tape drive must be capable of backing up the entire database on one tape, using compression techniques if necessary. Use the Release 4.0 Capacity Tool to calculate the database sizes.

Use a tape drive listed on the Microsoft Compatibility List for Windows NT 4.0 at <http://www.microsoft.com/hcl/default.asp>. Sybase software can load databases to tape drives that are compatible with Windows NT. This includes 1/4-inch cartridge and 4-mm and 8-mm digital audio (DAT) formats.

The tape drive can be internal or external to the server, depending on the manufacturer, and a SCSI tape drive is required, (for example, Tandberg SLR). Ensure that the SCSI ID for the tape drive does not conflict with existing SCSI IDs configured for other server devices.

## Offline backup

The information in this section supplements Chapters 11 Section D, Full Backups using a Third Party Utility and Chapter 12 Section D, Recovery using a Third Party backup of *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*

Nortel Networks recommends that a full offline backup be performed:

- after the initial Symposium Call Center Server installation and configuration.
- after a major upgrade to a new release.
- after any major hardware configuration changes.

The full backup is used to recover from situations such as a catastrophic failure.

Use a third-party utility (for example, Windows NT backup) to perform an offline backup. The third-party utility must comply with the guidelines specified in Section 5 Third party software on page 23. Verify the Full Backup tape and Restore procedure was successful before putting the server into a live environment, so that a full recovery is possible in the event of a failure.

## Online backup

The Symposium Call Center Server database online backup should be performed on a daily basis. Create a Platform Recovery Disk either when the server is first installed, or after any upgrade or system modification. In the event of any database corruption or system failure, use the database backup and the Platform Recovery Disk to restore data. For more information about backups, see the *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*.

## Disaster Recovery

Nortel Networks recommends that disaster recovery solutions are included in your overall backup and restore strategy. You should perform Full Backups after each major upgrade or configuration change on the server and label the backup tapes appropriately with the date and time that the Full backup was performed.

You should also run a database backup using the Symposium Call Center Server Release 4.0 database backup software. Nortel Networks recommends that these backups are run on a daily basis. In addition, you should use multiple backup tapes on a rotation basis, with tapes being rotated off-site for protection in the event of a catastrophic disaster.

## **Solution Redundancy**

### **RAID**

For maximum security and mission-critical systems, Nortel Networks recommends that hardware-RAID-1 be used for hard disk configurations. Microsoft Software-RAID is not supported. The difference between RAID-1 and other RAID levels (such as RAID-5) is indicated as follows:

#### **RAID-1**

RAID 1 is also known as *disk mirroring* and involves at least two drives duplicating the storage of data. There is no striping. Read performance is improved since either disk can be read at the same time. Write performance is the same as for single disk storage. RAID-1 provides the best performance and the best fault-tolerance in a multi-user system, but at a higher cost.

#### **RAID-5**

RAID 5 involves a rotating parity array, addressing the write limitation in RAID-4. All read and write operations can be overlapped. RAID-5 stores parity information but not redundant data. However, parity information can be used to reconstruct data. RAID-5 requires a minimum of three and usually five disks for the array. It is best for multi-user systems in which performance is not critical or which involve few write operations.

The implementation of other RAID levels (for example, RAID-5) with Symposium Call Center Server is possible provided the distributor has tested the configuration prior to placing the server into live operation. RAID implementation issues must be addressed by the RAID vendor.

## **High Availability**

There are numerous High Availability solutions available on the market. Whilst Symposium Call Center Server Release 4.0 is platform-vendor independent, Nortel Networks does not guarantee compatibility with High Availability solutions as such solutions typically require additional software or components which may conflict with Symposium Call Center Server Release 4.0 system requirements.

As a result, if hardware redundant solutions are required, they must be fully verified, either through Nortel Packaged Services, or Compatibility testing via the Nortel Networks Developer Program. For more information, refer to

[www.nortelnetworks.com/developer](http://www.nortelnetworks.com/developer). Contact your local Nortel Networks representative for further information.

**Note:** Microsoft Clustering is not currently supported as the Symposium application has not been developed to be cluster aware.

## Alternative Solutions

There are less complex alternatives to improve the Call Centre Solution reliability. For example, one solution is to use basic component redundancy such as RAID hotswap drives, redundant and hot-swap power supplies and fans and hot-swap Network Interface Cards, and/or providing a Standby Symposium Server.

This solution requires two Symposium Call Center Server systems configured identically, and can be complimented by an Option 81C with redundant CPUs.

The standby server (a mirror image) is built identically to the primary server in configuration and setup. The mirroring process for the server is achieved by completing backups on the primary server and restoring them on the secondary server. This allows servers to be kept synchronized. In the event that the primary server becomes unavailable, the second server can be connected to the network in place of the primary and the primary server removed for maintenance or repair.

As part of any disaster recovery plan, the secondary server should be tested for operational readiness at least once a quarter and for high volume call centers more once a month.

**Note:** The same TCP/IP address is used for both servers. Thus, only one server can be on the network at any time. Also, only one server can register and operate with the Meridian 1 PBX.

For further details, please contact your local Nortel Networks representative.

The Option 81C switch provides two levels of redundancy:

- 1 It provides full fail-over redundancy for all calls coming into the call center with its dual CPU configuration and transparent handling of calls.
- 2 The Option 81C provides default call routing to callers in the event that Symposium Call Center Server becomes unavailable. If the Symposium Call Center Server fails, then the server releases CDN control and the Meridian 1 assumes default ACD queuing treatment for the callers.

For further details, please contact your local Nortel Networks representative.

## Third party software

Application software requires system resource, third party applications can cause a real-time system, such as Symposium Call Center Server, to operate outside known engineering limits, and also create unknown system problems (for example, CPU contentions, increased network traffic loading, disk access degradations, etc)

Because of the mission-critical, real-time processing performed by Symposium Call Center Server, Nortel Networks stipulate that no other application software can be installed on the server. Only certain utility software can be installed, providing it conforms to these guidelines:

- Certain third party utility software, such as hardware diagnostics or backup tools, generally require less system resources during Symposium Call Center Server normal operations and are permitted.
- Utilities that may cause system problems and degrade performance such as screen savers are not permitted. Anti-virus software is classed as a utility and is subject to the generic guidelines below as well as a specific series of recommendations detailed further in this document.

**Note:** Third party backup software can only be used for full backups. The database backup must be performed using the utility provided by Symposium Call Center Server Release 4.0 due to proprietary functions called upon during the backup routine.

## Third party utilities

Third part utilities may be used as long as the following guidelines are adhered to:

- 1 During run-time, the utility must not degrade the Symposium Call Center Server system beyond an average 50 percent CPU utilization. Also, the utility must not lower the minimum amount of free hard disk space required by Symposium Call Center Server and the Windows operating system.
- 2 The utility must not cause any improper software shutdowns or out of sequence shutdowns.
- 3 The utility must not administer the Symposium Call Center Server software.
- 4 If the utility has its own database, it must not impact the Symposium Sybase database.
- 5 Disk Compression utilities must not be used.
- 6 Memory Tweaking utilities (for example, WinRAM Turbo, Memory Zipper, etc) to "reclaim" memory unused by Microsoft should not be used.
- 7 Software installation or uninstallation must not conflict with the Symposium Call Center Server software. For example, if DLL conflicts, a rebuild of the server may be necessary.

It is the implementation personnel's responsibility to perform tests to ensure these conditions and recommendations are met prior to putting the server into production. GNTS may ask for the results of the testing during fault diagnosis. As part of the fault diagnosis process, the distributor/ end user may be asked to remove third party software.

## Anti-virus software

Because access to servers is very restricted, the risk of virus infection of the Symposium Call Center Server is minimal. Normally, only maintenance personnel have local access or remote access through pcAnywhere to servers. Nevertheless, corporate security policies often require customers to install anti-virus software on servers.

Nortel Networks have tested several anti-virus software packages, including Norton, McAfee and Innoculate and recommend the following guidelines:

- 1 Install the Symposium Call Center Server software before installing the anti-virus software. Test the anti-virus software in compliance with the third party utilities as given on page 24.
- 2 During PEP installations on a client or server, disable all anti-virus software, including firewalls, passive scanning and auto updates, etc. After the entire Symposium Call Center Server installation is complete, re-enable the anti-virus software.
- 3 If personal firewalls are enabled on client PCs, the Report Listener may be flagged as trying to access the Internet. Properties must be configured to allow the Report Listener to have access through the firewall to the Symposium server.
- 4 Set virus scans to run during off-peak hours, and not to start on the hour.

**Note:** Several maintenance tasks are automatically activated on Symposium Call Center Server at midnight. An off-midnight time should be ensured for anti-virus software. Similarly, active virus scans should be disabled when running diagnostic traces or logs on the Symposium Call Center Server.

- 5 Infected file quarantine policy on the server and client: Anti-virus software should not be configured to deal automatically with suspected infected files. In the event of infected files being located, do not attempt to replace or remove them. Contact your local Nortel Support representative for assistance in determining if the file(s) are part of the Symposium application or a critical system file:
- 6 Nortel Networks recommends that the following files be excluded from scanning:

For MAS platforms:

D:\Nortel\Database\

F:\Nortel\Database\

<additional database drives>:\Nortel\Database\

For PVI platforms:

F:\Nortel\Database\

<additional database drive>:\Nortel\Database\

In addition, the following file should be excluded:

D:\Nortel\CCM\BIN\Tools2.exe

You will encounter file access errors in the Scan Activity log if this file is not excluded

- 7 Do not connect the Symposium client or server directly to the Internet to download any anti-virus files, whether original software or upgrades. Such activity is not supported by Nortel Networks.

**Note:** Internet access from any Symposium client or server should be limited as much as possible to reduce the risk of downloading virus-infected files. Virus definitions and upgrade files should be downloaded to another location on the customer network, and manually loaded to the Symposium client and server. This procedure is also recommended for downloading Symposium PEPs.

- 8 All PEP files, CD-ROMs, and floppy disks should be scanned prior to installation or uploading to the server.
- 9 Do not activate the SNMP virus alert feature. Nortel Networks has not tested this feature and is unable to ascertain any potential impact on Symposium.
- 10 Capacity considerations: Running virus scan software places an additional load on the Symposium server. Use the WINNT 4.0 Performance Monitor tool to gauge CPU utilisation. If the anti-virus scan causes average CPU utilisation to exceed 50 percent for longer than 20 minutes, the anti-virus software should not be loaded onto the Symposium Call Center Server.

**Note:**

- Nortel Networks does not provide technical support for anti-virus software. Questions or problems relating to anti-virus software should be directed to the appropriate vendor.
- The above recommendations are intended as guidelines only, and do not constitute a guarantee of compatibility. Nortel Networks does not plan to perform ongoing compatibility testing, or testing on other ant virus packages.



- If performance or functionality issues are raised to Nortel Networks GNTS, the customer/distributor may be asked to remove third party utility software or anti-virus software as part of the fault diagnosis process.

## Uninterruptible power supply (UPS)

If Smart Uninterruptible Power Supply (UPS) software is installed on the Symposium server, it should conform to the guidelines outlined above for third party utilities. See [Third party utilities](#) in this document. Nortel Networks only supports the manual shut down and start-up of the Symposium server. Documentation, testing and support of Symposium Call Center Server shut down and start up by UPS software must be done by the UPS supplier.

**Note:** If the Smart UPS requires a serial port on the server, the server requires an additional serial card, as the existing ports are required for Access link and modem.

## Server engineering

Use the Symposium Call Centre Server Release 4.0 Capacity Tool A0828283 / NT9F45AG to determine if the customer's configuration can be accommodated on their PVI server. Symposium Call Center Server Release 4.0 includes the latest Capacity Tool version.

## Increasing capacity

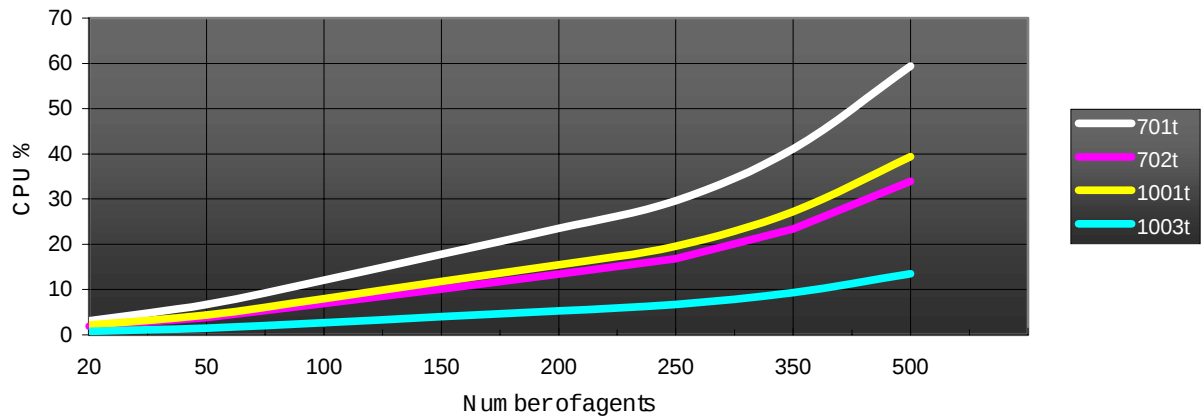
Existing customers on Symposium Call Centre Server Release 1.x or Symposium Call Centre Server Release 3.0 should always use the Capacity Tool when making any significant changes to system capacity, particularly when adding agents or increasing call volume. If the current server does not meet the call centre requirements, an upgrade to Symposium Call Centre Server Release 4.0, and migration to a more powerful PVI server may be required.

## Upgrading

Due to additional functionality, CPU utilisation for Symposium Call Center Server Release 4.0 is higher than for Release 3.0. Customers with a MAS platform who are upgrading to Symposium Call Centre Server Release 4.0 without changing their platform should verify that the server has sufficient capacity for Symposium Call Centre Server Release 4.0. The graph below indicates the additional processing required for Symposium Call Centre Server Release 4.0, according to the size of the call centre, and the server type. These calculations are approximate, and are based on typical call centre configurations, using the standard Symposium client.

**Note:** Symposium Web Client will significantly reduce the server capacity.

### Additional CPU requirements at Release 4.0



Prior to upgrading to Symposium Call Centre Server Release 4.0, Nortel Networks recommends that you run the WinNT 4.0 Performance Monitor tool on the server to obtain CPU utilization for busy hour, and then refer to the graph above to estimate the additional usage at Symposium Call Centre Server Release 4.0.

If average CPU utilisation exceeds 50 percent for longer than 20 minutes intervals, a more powerful server is required.

For a more detailed capacity analysis, run the Symposium Capacity Tool. This allows you to experiment with the customer configurations (in terms of number of Real Time Displays (RTDs), Graphical Real Time Displays (GRTDs), etc.) to reduce potential CPU utilisation.

## Migrating to PVI

For detailed information on migration to a PVI platform, see [Performing pre-conversion and migration procedures](#) in this document. Also, refer to *Nortel Networks Symposium Call Center Server Platform Migration Guide*. The information in this section supplements the procedures outlined in the *Platform Migration Guide* and in other sections of this document.

To calculate if your PVI platform meets the Symposium Call Centre's capacity requirements, use the Capacity Tool. Enter the necessary information for the CPU type (single or dual), CPU speed, disk space, configuration, (for example, the number of RTD's, voice services information, etc.). The Capacity tool tells you if the configuration exceeds server capacity in terms of CPU utilization and disk space. If server capacity is insufficient, you may either migrate to a more powerful server or modify the current server's configuration.

**Note:**

- The engineering model used in the Capacity Tool is based on the iCOMP values of standard Intel Pentium III Processors and assumes 256KB of L2 cache.
- When calculating disk space requirements, the Capacity Tool allows 4 GB for the operating system and Symposium application.
- Xeon processors or more cache may enhance performance, but Nortel Networks has not included these variables in its Engineering models.

For more information on using the Capacity Tool, refer to the *Nortel Networks Symposium Call Center Server Planning and Engineering Guide*.

## **Windows NT™ operating system**

Symposium Call Center Server Release 4.0 is supported on Windows NT4.0 server English version only.

### **Service Packs**

Windows NT 4.0 Service Pack 6A is supplied on the Platform Support CD and should be applied prior to the Symposium Call Center Server Release 4.0 installation. Security hot fixes (for example, Security rollup package) can be installed on the server after installation of the Symposium Call Center Server Release 4.0 software. Nortel Networks endeavors to support Symposium Call Center Server Release 4.0 installations with later Microsoft system service packs and hot fixes than those tested during product development and indicated in our standard product documentation. Before installing hot fixes, ensure that the database has been backed up and also perform a full backup. See the specific platform documentation for further detail and procedure.

**Note:** Windows NT 4.0 Service Pack 6A is provided by Nortel Networks and is 40-bit encryption. If 128-bit encryption is required, request the service pack from the distributor/end user.

### **Windows NT License Requirement**

Nortel Networks recommends that distributors/end users choose 5 concurrent sessions per server during Windows NT license setup (which is the same as Symposium Call Center Server Release 3.0 setup).

### **Workgroups vs. Domains**

Nortel Networks recommends that the Symposium Call Center Server Release 4.0 system is installed to a separate workgroup and is not added to your Windows NT Domain. This ensures that you can:

- reduce potential performance impacts to Symposium Call Center Server Release 4.0
- reduce unnecessary network traffic caused the use of Microsoft Domain
- reduce potential security openings into Symposium Call Center Server Release 4.0 through the Microsoft Domain

Symposium Call Center Server Release 4.0 does not need to be installed within Windows NT Domain for the following reasons:

- The only network dependency for Symposium servers is TCP/IP (and not Microsoft's NetBIOS/NetBEUI).
- Symposium Call Center Server Release 4.0 does not use any Microsoft networking resources offered by MS Domain.
- Symposium Call Center Server Release 4.0 does not share any of its resources with Domain members.

## Upgrades and Migrations

For detailed information on upgrades and migration, see [Performing pre-conversion and migration procedures](#) in this document. Also, refer to *Nortel Networks Symposium Call Center Server Platform Migration Guide*. The information in this section supplements the procedures outlined in the *Platform Migration Guide* and in other sections of this document.

To migrate Symposium Call Center Server Release 4.0 to a PVI server, you must upgrade to Symposium Call Center Server Release 4.0 in the MAS configuration (for example, C:\ drive formatted FAT, and Windows NT installed on D:\ drive). A platform migration to the target server is required to provide a PVI configuration of Symposium Call Center Server Release 4.0. This requires 2 keycodes: one to upgrade Symposium Call Center Server to Release 4.0 with the MAS configuration, and one to provide a fresh installation of Symposium Call Center Server Release 4.0 as part of the platform migration. However, It should be noted that you can perform a s/w upgrade (conversion) and expand features in one step, using just one new keycode.

**Note:** These keycodes are automatically provisioned with Symposium Call Center Server Release 4.0. Nortel Networks ship 2 keycodes by default – one for PVI server, one for MAS server.

Migration from legacy MAS platforms to PVI servers requires the target server to have an additional partition available. For example, if the source server has partitions C, D, F, and G, the target server must have partitions C, D, F, G, and H. The original database is located in drive D:\, and the target PVI server must have the database starting on drive F:\ (Drive E is the CD-ROM drive in this example).

Migrating from 1001t and 1003t servers to a PVI server requires a 24GB minimum disk space, that is, 4 GB minimum for disk 0 (partitions C and D) and 20 GB for 5 x 4GB database partitions.

Migrating from 701t and 702t servers to a PVI server requires a 16GB minimum disk space, that is, 4 GB minimum for disk 0 (partitions C and D) and 12 GB for 3 x 4GB database partitions.

## Disk Partitioning

Please refer to Section 4 of this document for PVI Disk Partitioning requirements.

## Technical Support

All hardware diagnostics are the responsibility of the hardware vendor. You should always check with the manufacturer's instructions and recommendations before you perform any hardware-related procedure.

It is the distributor / end user's responsibility to verify their selected server. This verification should include making sure the PVI system conforms to specifications as listed in this bulletin, installing the Operating System and ensuring it is functional (ie. boots up correctly, is able to connect to the network etc), before installing and configuring Symposium Call Center Server Release 4.0. On Symposium Call Center Server Release 4.0, basic functionality should be verified e.g. Services come up, reports print, realtime displays can be viewed, agents logged in and calls successfully processed through scripts.

Nortel Networks provides support for installation and configuration of Symposium Call Center Server and on questions concerning the configuration of the Operating System and pcAnywhere32.

Nortel Networks continue to support existing Nortel Networks - provided hardware platforms – 701t, 702t, 1001t and 1003t which are all compatible with Symposium Call Center Server Release 4.0.

## PVI servers tested in Nortel Networks facilities

As guidance, Nortel Networks has performed tests on the following servers from major platform vendors:

- Compaq PROLIANT 3000, 800 or 1600
- HP NETSERVER LC3 and LH4
- IBM NETFINITY 3500
- Dell PowerEdge 2300

Although the specifications and components of the servers tested may change throughout their life cycle, Nortel will not be performing on-going testing of these

platforms. Nortel Networks' testing did not include any vendor-specific utilities or diagnostic tools that may be delivered with the above platforms.

In addition to the above servers, Nortel Networks and IBM have performed successful compatibility testing on IBM's eServer xSeries 240/250 platforms.

## Section 3: Installation problems and workarounds

This section identifies some problems encountered during the installation of Symposium Call Center Server Release 4.0. If you encounter these problems, use the workarounds identified in this section until Nortel Networks releases a PEP to replace the workaround. For each problem, this document includes a PEP forecast identifying the PEP in which this problem will be addressed.

**Note:** Before proceeding please install Service Update SU06S onto your system. All other known issues are dealt with in SU06S, and earlier service updates.

The following table summarizes the installation problem items included in this section.

| <b>PRs number</b> | <i>Problem description</i>                                                                                                                                                 | <i>Resolution status</i>                    |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| TM23399           | Database Consistency Scan prior to Upgrade from Symposium Call Center Server Release 3.0 or Release 1.5 to Release 4.0                                                     | See description of this problem in the text |
| TM23274           | US-128-bit version SP6a not available on Platform Support CD                                                                                                               | See description of this problem in the text |
|                   | Symposium Call Center Server Release 4.0 PVI server migration failure when the database partition size is greater than 5GB on both the Source and Target Server platforms. | See description of this problem in the text |

### Database Integrity Scan prior to Upgrade from Symposium Call Center Server Release 3.0 or Release 1.5 to Release 4.0 [TM23399]

#### Problem description

To ensure the integrity of the database, Nortel Networks recommends that you perform a Database Integrity Check before upgrading from Release 3.0 or Release 1.5 to Release 4.0. This will prevent any database consistency problems.

## Recommendation

Nortel Networks recommends that you perform a manual Database Integrity Check.

Before starting the Database Integrity Check, make sure that the latest Service Update PEP and subsequent PEPs are installed on the Symposium Call Center Server Release 3.0 or Release 1.5 system. The Database Integrity Check should be performed immediately before the Symposium Call Center Server Release 3.0 or Release 1.5 upgrade.

**Note:** The Database Integrity Check operation is an off-line operation. Before beginning shut down all Symposium Call Center Server services.

To perform a Database Integrity Check:

- 1 Select Migration in the Symposium Call Center Server program group.
- 2 Choose the Database Integrity Check option, and click Continue.
- 3 Follow the on-screen instructions to complete the scan.

### Notes:

- A Database Integrity Check takes up to 30 minutes to complete depending on the amount of data and the size of the databases. When the Database Integrity Check is complete, check the database log file (C:\DbChk.log) for error messages. When checking the log file, search for keywords such as ERROR or MSG.
- Contact your Nortel Networks customer support representative if you detect any database errors. Do not put the server into service with any such errors, even if it seems to be functioning normally.
- Disregard appearance of the word "error" in the following sentence in the C:\DbChk.log file: DBCC execution completed. If DBCC printed error messages, contact a user with System Administrator (SA) role.

## US-128-bit version of SP6a not available on the Platform Support CD [TM23274]

### Problem description

If you have 128-bit High Encryption Level with SP (6a or earlier) installed on your Symposium Call Center Server Release 4.0, and try to install a 40-bit SP6a (provided on the Platform Support CD) the following error message may appear: Service pack with standard encryption on system with high encryption.



## **Recommendation**

Only the US-40 bit version of SP6a is available on the Platform Support CD. You can obtain a 128-bit SP6a from the Microsoft Web site. Alternatively you can reinstall NT4 and install the US-40 bit version of SP6 from the Platform Support CD.

## **Symposium Call Center Server Release 4.0 PVI server migration failure**

### **Problem description**

A migration issue has been found on Symposium Call Center Server Release 4.0 PVI Servers. The Symposium Call Center Server Release 4.0 PVI server fails to migrate when the database partition size is greater than 5GB on both the Source and Target Server platforms.

### **Recommendation**

This issue is addressed by Symposium Call Center Server Release 4.0 PEP NS040107SU07S. This PEP must be applied to the source Symposium Call Center Server Release 4.0 server prior to the migration to another Symposium Call Center Server Release 4.0 Server if the database partition size is greater than 5 GB. After applying this PEP, a new Platform Recovery Disk must be created.

**Note:** The creation of a Platform Recovery Disk must be followed by a database backup.

## Section 4: Disk Partitions

### Overview

Symposium Call Center Server Release 1.5, 3.0, and 4.0 configurations require that all drives except drive C:\ be configured as logical partitions. To confirm that you have a valid configuration:

- 1 From the Windows Start menu, choose Programs > Administrative Tools > Disk Administrator
- 2 Once Disk Administrator is running, examine the list of disks. Ensure that all the optional drives (all disks except drive C:\) are partitioned as *Logical Drives* and not *Primary Partitions*. You can determine if a drive is primary by looking at its color. If the drive has the same color as Drive C: (i.e. dark blue), it is primary. If the drive has a different color (i.e. light blue), it is logical.
- 3 Also check that the disk configuration (the drive name order) is the same as the one specified in *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*.

If all your optional drives are configured logical partitions, you may skip the rest of this section.

### Potential problems caused by improper configuration of optional hard drives

If even one of these partitions is defined as a primary partition, you may encounter problems. These problems are divided into three types:

- 1 A Blue screen error may occur when booting NT after a full restore. This is due to the interaction with PcAnywhere.
- 2 Services may not start up after a full restore.
- 3 Problems may occur during a conversion from SCCS R 1.5 to SCCS R 4.0

### Workarounds

Problems 1 and 2 occur because the order of the drive letters on the system have been scrambled. This results in the NT and Nortel directories being moved from drive D to another drive.

After you log into the restored system, you should check that the optional drives have been given the right drive letter assignments. If they haven't, you need to use "Disk Administrator" to change them so they have the proper assignments. For information on how to do this, see "Formatting optional drives" on page 63 of the *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*.

Problem 3 occurs during an Operating System upgrade from Windows NT 3.51 to Windows NT 4.0. The Operating System installation software may specify that Windows NT 3.51 is located on the wrong drive. For example if Windows NT 3.51 has been installed into the D:\winnt35 directory during an upgrade to Windows NT 4.0, the Windows NT installation software may suggest upgrading Windows NT 4.0 into the G:\winnt35 directory. If this happens, please follow the following steps:

- 1 Users should accept the proposed destination and continue with the Operating System upgrade according to *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*.
- 2 After you log on to the upgraded Operating System, do not start the Symposium Call Center Server Release 4.0 installation until you have confirmed that the optional drives have the correct drive letter assignments. If they do not, you will need to use "Disk Administrator" to change them so they are assigned correctly. For information on how to do this, see "Formatting optional drives" on page 63 of the *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*.
- 3 You may now proceed with the Symposium Call Center Server Release 4.0 installation.

## Fixing the problem at the source

Although it is possible to workaround the problems caused by having the optional drives partitioned as primary partition, in the long run, it is better to fix the problem at the source. The following is a list of the steps needed to change partition types. As with all major system changes, it is recommended that you take the steps necessary to restore your system in the event of failure. You will need to perform a full backup or perform a database backup and create a Platform Recovery Disk.

## Hard disks reconfiguration

The problem of incorrect disks configuration can be fixed by either completing a Full Backup and Restore, or a Database Backup and Restore with a Platform Recovery Disk. The configuration of the optional hard disks should be corrected:

- 1 After the Operating System is installed.
- 2 During partitioning of the optional hard disks.
- 3 Before restoring from a full backup or before installing Symposium Call Center Server Release 4.0 in performing a platform migration to restore from a partial backup.

Please refer to *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide* for more details. These approaches are more time consuming,

but since they are parts of the standard Symposium Call Center Server Release 4.0 operating procedures, these methods are better tested and more reliable. If customers can afford longer Symposium Call Center Server downtime, it is recommended that you use these procedures to correct the system configuration. Otherwise, use the following instructions to correct the problem.

## **Hard disk reconfiguration using selective backup**

### ***Part 1 – Shutting down Symposium Call Center Server completely***

**Caution:** Symposium Call Center Server must be shut down before the disk reconfiguration procedure begins.

The following process ensures that Symposium Call Center Server has been completely shut down.

- 1 Open a DOS Prompt or Command Prompt
- 2 Type the following sequence of commands at the Command Prompt:
  - a. D:
  - b. cd \nortel\iccm\bin
  - c. serman manual
- 3 Reboot the server and log on again.
- 4 From the Windows Start menu choose Programs > Sybase SQL Server Professional > Services Manager.
- 5 Ensure that all Sybase services (SQL Server, Backup Server and Monitor Server) are shut down. If any service is running, shut it down. To shut a service down: select the service and then click the red light on the traffic light interface.

### ***Part 2 – Manually Backing up the optional drives***

- 1 Ensure there is a blank, non-write protected tape in the tape drive.
- 2 From the Windows Start menu, choose Programs > Administrative Tools > Backup.
- 3 Open the Drives window. A list of drives that can be backed up appears.
- 4 In that list of drives, place a checkmark on all of the optional drives. Do not place a checkmark on drives C and D, even though they are present.
- 5 From the Operations menu select Backup. The restore dialog box will appear.
- 6 Start the backup.
- 7 Once the selective backup has completed, the status of the backup will be displayed. Confirm that the backup has been successfully completed. Also, ensure that no files have been skipped during backup. This information is available in the Backup utility.
- 8 If the status is successful, proceed to Part 3 before you restart services.
- 9 If it was unsuccessful, the results report will direct you to an error log that will explain what went wrong.

**Caution:** Please note that if the status states that the backup was unsuccessful It is unsafe to continue with Part 3, instead you should proceed directly to Part 4. Once you have determined why the backup failed, go back to Part 1 and retry.

### ***Part 3 – Restoring the optional drives***

- 1 With the server still in the down state, Go to the Windows Start menu, and choose Programs > Administrative Tools > Disk Administrator.
- 2 Record the sizes of all optional drives.
- 3 Delete the partitions of the optional drives only.  
**Note:** If a warning appears stating that drives are locked, it means that one of the Symposium Call Center Server or Sybase services has not been shut down. Fix this problem before proceeding.
- 4 Recreate the partitions you just deleted, but this time as Logical Drives. Make sure that the partition sizes are the same. Use Create Extended followed by Create options in the Disk Administrator to create the Logical Drives.
- 5 Using the Disk Administrator format the optional drives as NTFS
- 6 Once all the optional drives have been recreated to use extended partitions, close the Disk Administrator.
- 7 From the Windows Start menu choose Programs > Administrative Tools > Backup.
- 8 Ensure that the tape that you prepared in **Part 2** is in the tape drive.
- 9 From the Operations menu select Catalog. After the tape has finished rewinding, a list of drives that were backed up appears.
- 10 In that list of drives, place a checkmark beside all the optional drives. Make sure you do not place a checkmark on drives C and D, even if they are present.
- 11 From the Operations menu select Restore. The Restore dialog box appears.
- 12 Start the restore.
- 13 When the restore has completed, the status should say that it completed successfully. If it doesn't, the results report will direct you to an error log.

### ***Part 4 – Restarting Symposium Call Center Server after the restore***

- 1 Open a DOS Prompt or Command Prompt
- 2 Type the following:
  - a. D:
  - b. cd \nortel\iccm\bin
  - c. serman auto
- 3 Reboot the server and log in again.

## Concerns about downtime

The customer may have concerns about downtime. Part 2 of the procedure outlined above will force Symposium Call Center Server to be shut down for the time it takes to do a full backup to tape. The restore in Part 3 will take the time it takes to do a full restore from tape.

However, one partition at a time can be backed up and restored (ie. Part 2 and Part 3) at a time; thus reducing the down time to backup and restore all needed partitions in a single day. Other partitions can be backed up and restored at another time by following the same procedure.

The downtime for a day would then be equal to the time it takes to backup and restore a single disk partition.

To convert a single partition:

- 1 Chose one of the partitions that need to be changed.
- 2 Perform Part 1.
- 3 Perform Part 2, but only back up the partition that you selected.
- 4 Perform Part 3, but only recreate and restore the single partition that you selected.
- 5 Perform Part 4.

## Revised disk partitioning for 1003t PVI

This section contains revised disk partitioning information for disks on a 1003t Platform Vendor Independence (PVI) system. Please note that the information given here supersedes all previous 1003t disk partitioning information.

If you are using a 1003t PVI system, please partition the disks as described below rather than as described in any related Nortel Networks publications for Symposium Call Center Server 4.0. Specifically the following sections have changed in the *Platform Vendor Independence Base Configuration Guide*, Product Release 4.0, Standard 1.0, November 2000:

“Disk partitioning for new installations” on page 22 and 23.

“Disk partitioning for 1003t server installations” on page 25.

**Note:** This change to disk partition configuration applies only to the Nortel Networks 1003t PVI servers.

The table below contains the revised disk partitioning information for rebuilding a Nortel Networks 1003t server configured for Platform Vendor Independence. In summary:

- The sizes of partitions C and D have been reduced from 4095 Mbytes to 2048 Mbytes.
- Partition F has moved from disk 1 to disk 0. Disk 0 now has 3 partitions: C, D and F.
- Partition J has been added to disk 2.

**Note:** All partitions must be partitioned as NTFS.

| Disk number | Drive letter | Partition type | Partition size |
|-------------|--------------|----------------|----------------|
| 0           | C            | Primary        | 2048 Mbytes    |
|             | D            | Extended       | 2048 Mbytes    |
|             | F            | Extended       | 4095 Mbytes    |
| 1           | G            | Extended       | 4095 Mbytes    |
|             | H            | Extended       | 4095 Mbytes    |
| 2           | I            | Extended       | 4095 Mbytes    |
|             | J            | Extended       | 4095 Mbytes    |

## Symposium Call Center Server Release 4.0 PVI – Maximum Disk Partition Size for the Symposium Call Center Server Database

This section outlines the maximum database partition size and maximum number of logical disk partitions that must be adhered to when configuring a Symposium Call Center Server Release 4.0 PVI server. Problems with installation and/or database restore can occur if this document is not followed. See [SCCS R4.0 PVI – Problems encountered with more than 16 GB database partitions](#) in this document. This section contains the test results for a SCSI hard disk as supported in the Symposium Call Center Server Release 4.0 NTP for PVI platforms.

## Symposium Call Center Server Release 4.0 PVI Server - Supported Disk Partition Configuration for the Symposium Call Center Server Database

This section details the drive partitioning required for a Symposium Call Center Server Release 4.0 PVI system. The information in this section replaces the PVI Partitioning information in the *Symposium Call Center Server Platform Vendor Independence Base Configuration Guide, Product release 4.0, Standard 1.0, November 2000*.

### Drive Partitioning Requirements

- The C drive should be located on disk 0 and configured as Primary Partition. Subsequent partitions should be configured as Extended partitions.
- It is recommended that F and subsequent database partitions are located on a different physical drive to C and D.
- Additional database disk drive partitions can be on separate physical disks or on the same disk, depending on the customer's preference and hardware configuration.
- First Partition:  
The disk partition letter must be C: (for Windows NT Server 4.0)  
Minimum partition size: 2 Gbytes  
Recommended partition size: 4 Gbytes  
File system type: NT File system (NTFS)

**Note:** You may want to increase the c:\ partition to greater than the recommended size to accommodate the virtual memory swap file. If this is the case, they should refer to any restrictions that Microsoft may have documented for their machine from Microsoft's Web site: <http://www.microsoft.com/>.

- Second Partition:  
The disk partition letter must be D: (for Symposium Call Center Server application)  
Minimum partition size: 2 Gbytes  
Recommended partition size: 4b Gbytes  
File system type: NT File system (NTFS)
- One CD-ROM  
The device letter must be E:  
Minimum speed 24x



- Database Partitions are as follows:

**Note:**

- Each database partition must of identical size.
- A combination of different database sizes is not allowed (ie. all X GB partitions, where X can be between 4096 MB (4 GB) to 16384 MB (16 GB) in 1024 MB (1 GB) increments.

| Description                                               | Limit / Value                  |
|-----------------------------------------------------------|--------------------------------|
| Database partition File-System type                       | NTFS                           |
| First database partition on a PVI platform (drive letter) | F                              |
| Additional database partitions (drive letters)            | G to U                         |
| Minimum database partition size                           | 4096 MB (4 GB)                 |
| Additional database partition size (F to U)               | In increments of 1024 MB (1GB) |
| Maximum database partition size                           | 16384 MB (16GB)                |
| Maximum size of hard disk space for database partitions   | 64 GB (65536 MB)               |
| Maximum number of 16 GB database partitions               | 4                              |

**Note:** Problems with installation and/or database restore can occur if the guidelines for database partitions are not followed. (See the section later in this document called “Problems encountered with more than 16 GB database partitions”).

**Attention:** There is a known problem with PVI platform migrations on Symposium Call Center Server Release 4.0. A migration failure will occur if both the source and target server platforms have database partition sizes greater than 5 Gbyte. This issue will be addressed by Symposium Call Center Server Release 4.0 PEP NS040107SU07S. This PEP must be applied on the source Symposium Call Center Server Release 4.0 server prior to the migration to the target Symposium Call Center Server Release 4.0 server if the database partition size is greater than 5 Gbyte. After applying this PEP, a new Platform Recovery Disk must be created followed by a database backup.

## Symposium Call Center Server Release 4.0 PVI server Engineering Guidelines

The following tables shows the engineering guidelines for the minimum Total Disk Space required for various call center workloads.

| Call Center Workload | # Active Agents | Calls Per Day | Total Disk Space Required (GB) |
|----------------------|-----------------|---------------|--------------------------------|
| Entry                | 20              | 7,200         | 4.4                            |
| Small                | 100             | 36,000        | 6.1                            |
| Medium               | 200             | 72,000        | 8.2                            |
| Large                | 500             | 180,000       | 16.7                           |
| R4.0 Upper Limit     | 1,000           | 360,000       | 29.9                           |
| Upper End            | 1,500           | 540,000       | 42.4                           |

## Symposium Call Center Server Release 4.0 PVI Server - Benchmark for 16 GB Database partition

The bench mark results below act as guidelines to indicate the amount of time it takes to perform database maintenance. This includes tasks such as performing database backups and a Database Integrity Check (DBCC). The actual time may vary on other PVI platforms.

- Database partitions size: 16384 MB
- Total number of Database Partitions: 4
- Blue DB Size: 23348 MB (23.34 GB)
- CBC DB Size: 27678 MB (27.67 GB)

**Note:** See [SCCS R4.0 PVI Server – Tape Capacity for Database Backup](#) to calculate the maximum size of database used for backup.

| Hardware           |                                                        |
|--------------------|--------------------------------------------------------|
| Platform           | Dell Optiplex GX200, 256 MB RAM                        |
| CPU                | 728 MHZ                                                |
| Hard Disk          | 80GB SCSI (primary with Windows NT O.S / SP 6a)        |
| Primary Partition  | C: for Windows NT O.S (4096 MB)                        |
| Extended Partition | D: for Symposium Call Center Server software (4096 MB) |
| Tape Drive         | Tandberg Tape Drive SLR32                              |

**Note:**

- The 32GB (compressed) TANDBERG tape can only backup up to 19GB of Sybase database (data volume).
- The maximum total database combination partition disk size is 64 GB

**Benchmark Results**

| Process           | 15GB<br>Data Volume | Default<br>Data Volume |
|-------------------|---------------------|------------------------|
| Database backup   | 95 minutes          | 28 minutes             |
| Database Restore  | 213 minutes         | 127 minutes            |
| +Auto DBCC        | 163 minutes         | 29 minutes             |
| +System Overhead* | 15 minutes          | 15 minutes             |
| Total DB Restore  | 391 minutes         | 171 minutes            |
| DBCC              | 163 minutes         | 29 minutes             |

\*System Overhead is the approximate time to shutdown/restart Sybase server during Restore process and setting database thresholds.

**Notes:**

- Default data volume is the state of the system with a brand new install (i.e. No historical and configuration data stored in the database yet.)
- A migration issue has been found on Symposium Call Center Server Release 4.0 PVI Servers. The Symposium Call Center Server Release 4.0 PVI server fails to migrate when the database partition size is greater than 5GB on both the Source and Target Server platforms. This issue is addressed by Symposium Call Center Server Release 4.0 PEP NS040107SU07S. This PEP must be applied to the source Symposium Call Center Server Release 4.0 server prior to the migration to another Symposium Call Center Server Release 4.0 Server if the database partition size is greater than 5 GB. After applying this PEP, a new Platform Recovery Disk must be created. The creation of a Platform Recovery Disk must be followed by a database backup.

**Symposium Call Center Server Release 4.0 PVI Server – Guideline for Creating Database Partitions**

The following table contains guidelines for creating identically sized database partitions using a maximum of 64GB (65536MB) hard disk space for Database partitions.

**Note:** A combination of different database sizes is not allowed (ie. all X GB partitions, where X can be between 4096 MB (4 GB) to 16384 MB (16 GB) in 1024 MB (1 GB) increments.

| Database Partition<br>(in GB) | Each Database<br>Partition Size<br>(in MB) | Drive Letters<br>for Database<br>Partitions | Total Number of<br>Same Sized<br>Database<br>Partitions |
|-------------------------------|--------------------------------------------|---------------------------------------------|---------------------------------------------------------|
| 4 GB                          | 4096 MB                                    | F to U                                      | 16                                                      |
| 5 GB                          | 5120 MB                                    | F to Q                                      | 12                                                      |
| 6 GB                          | 6144 MB                                    | F to O                                      | 10                                                      |
| 7 GB                          | 7168 MB                                    | F to N                                      | 9                                                       |
| 8 GB                          | 8192 MB                                    | F to M                                      | 8                                                       |
| 9 GB                          | 9216 MB                                    | F to L                                      | 7                                                       |
| 10 GB                         | 10240 MB                                   | F to K                                      | 6                                                       |
| 11 GB                         | 11264 MB                                   | F to J                                      | 5                                                       |
| 12 GB                         | 12288 MB                                   | F to J                                      | 5                                                       |
| 13 GB                         | 13312 MB                                   | F to I                                      | 4                                                       |
| 14 GB                         | 14336 MB                                   | F to I                                      | 4                                                       |

|       |          |        |   |
|-------|----------|--------|---|
| 15 GB | 15360 MB | F to I | 4 |
| 16 GB | 16384 MB | F to I | 4 |

### **Symposium Call Center Server Release 4.0 PVI Server – Tape Capacity for Database Backup**

**Caution:** You must ensure that the tape used for database backup has enough capacity to hold the Sybase database backup files.

The following procedure may be used to determine the required tape capacity for a database backup:

- 1 Login to the Symposium Call Center Server Release 4.0 Server using Symposium Call Center Server Client
- 2 Open the Historical Statistics application and add the required space for CBC and System Database i.e. use the formula:

Required CBC Database Size + Required System Database Size =  
Maximum Data that will be backed up in the Database

The following screenshot shows the PVI nodal server historical statistics application viewed using Symposium Call Center Server Release 4.0 Client.

Historical Statistics - TECHTRIAL - D:\Program Files\Nortel Networks\Symposi... ? X

Options Parameters Duration Call by Call

| Application Name      | Call by Call |
|-----------------------|--------------|
| ACD_DN_Application    | None         |
| Alan                  | None         |
| Cust_Care_Application | Local        |
| huutest               | None         |
| Master_Script         | Local        |

Disk Space

Call by Call database

Actual : 9764 MB

Required : 1579 MB

System database

Actual : 10662 MB

Required : 6034 MB

Calculate

Save Cancel Help

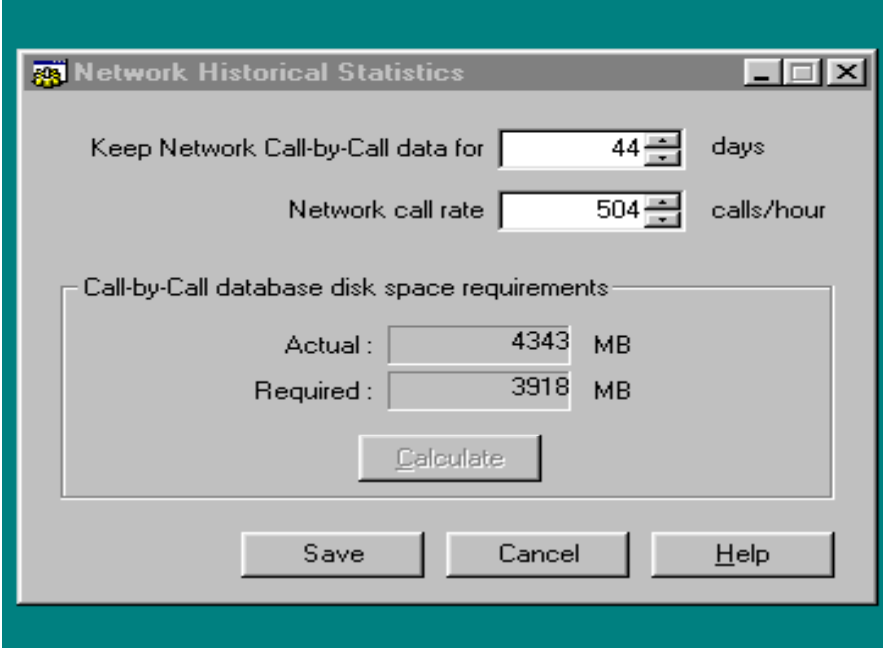
The tape capacity required here can be calculated as:

Required CBC Database Size: 1579 MB + Required System Database Size: 6034 MB

The required tape capacity for database backup would be: 7613 MB

**Note:** The 32GB (compressed) TANDBERG tape can only backup up to 19GB of Sybase database (data volume).

Following example shows the Symposium Call Center Server Release 4.0 PVI NCC Server – Network Historical Statistics Application viewed using a Symposium Call Center Server Release 4.0 Client:

The screenshot shows a Windows-style application window titled "Network Historical Statistics". It has a standard title bar with minimize, maximize, and close buttons. The main area contains several input fields and a "Calculate" button. The first section has "Keep Network Call-by-Call data for" followed by a spin box set to "44" and the unit "days". Below this is "Network call rate" followed by a spin box set to "504" and the unit "calls/hour". A larger box titled "Call-by-Call database disk space requirements" contains two rows: "Actual :" with a spin box set to "4343" and "MB", and "Required :" with a spin box set to "3918" and "MB". A "Calculate" button is positioned below these two rows. At the bottom of the window are three buttons: "Save", "Cancel", and "Help".

| Parameter                                                | Value | Unit       |
|----------------------------------------------------------|-------|------------|
| Keep Network Call-by-Call data for                       | 44    | days       |
| Network call rate                                        | 504   | calls/hour |
| Actual (Call-by-Call database disk space requirements)   | 4343  | MB         |
| Required (Call-by-Call database disk space requirements) | 3918  | MB         |

The tape capacity required here can be calculated as:

Required NCC CBC Database Size: 3918 MB + \*\*Required NCC System Database Size (Additional size for blue/system database) = 3918 + 3072 MB = 6990 MB

(\*\*The System Database Size is set to 3072 MB for the NCC server.)

**Note:** The 32GB (compressed) TANDBERG tape can only backup up to 19GB of Sybase database (data volume).

## **Symposium Call Center Server Release 4.0 PVI – Problems encountered with more than 16 GB database partitions**

Customer sites that have created more than 16GB database partitions may encounter problems during installation, migration, database backup, and database restoring.

### ***Installation / Migration problems***

The installation of the database during installation and/or migration of Symposium Call Center Server Release 4.0 may fail with the following error message: Could not create Database. The Symposium Call Center Server log file **LOG.TXT** created in D:\Norte\lccm\Dbinst may show contain the following error messages if database creation fails:

Error Message 1: If the partition size greater than 16GB but less than 32 GB.

Msg 5123, Level 16, State 1:

Line 1:

DISK INIT encountered an error while attempting to open/create the physical file. Please consult the SQL Server error log (in the SQL Server boot directory) for more details.

Error Message 2: If the partition size greater than or equal to 32 GB, The Symposium Call Center Server log file **LOG.TXT** may contain the following error message:

Msg 5103, Level 16, State 1:

Line 1:

Illegal disk address range. The sum of VSTART and SIZE must be less than

16777216 (0x10000000)

### ***Database Backup and Restore problems***

If the database partitions are greater than 16Gbytes Database backup and restore may fail. The error messages will differ for each platform.

Customer sites that have created more than 16GB database partitions will be supported on individual case basis. All new installations & migrations (to Symposium Call Center Server Release 4.0 PVI servers) must conform to the new supported limits. Symposium Call Center Server Release 4.0 databases created on more than 16GB partitions may encounter database backup and restore problems.



## **Section 5: Platform migration for Symposium Call Center Server Release 4.0**

### **Platform migration from a MAS to a PVI platform**

If you are migrating from a MAS server to a Platform Vendor Independence (PVI) server, the target server requires an extra drive partition with a minimum size of 4 Gbytes.

Please refer to *Symposium Call Center Server Platform Migration Guide* (Product release 4.0, Standard 1.0, November 2000) pp. 21-24 for more details.

## Section 6: System restore from backup tape

You can use the Platform Migration procedure, with a database backup tape, to restore a Symposium Call Center Server system (for example, from a critical failure). If Service Update PEP SU05S (or higher) was not installed at the time that the database backup tape was created, Service Update SU05S (or higher) must be installed prior to restoring the database as documented in this procedure. After the database has been restored, you must uninstall and then reinstall the Service Pack.

**Note:** If the Service Update at the time that the database backup was made is at the same level as the one on the system, the Service Update does not need to be uninstalled and then reinstalled after the database is restored.

## Section 7: AcceleRAID 352 controller card RAID procedures

The DAC960 RAID controller card is no longer being manufactured. It has been replaced with the Mylex AcceleRAID 352 controller card. This section contains new RAID procedures for each of the following servers:

- 702t
- 1001t

These procedures replace the corresponding procedures in the respective server documentation.

**Note:** Nortel Networks recommends that you keep an up-to-date backup of your RAID configuration and store it in a safe place.

### Replacing a Mylex AcceleRAID 352 card

#### Introduction

If necessary, you can replace an existing Mylex AcceleRAID 352 card with a new Mylex AcceleRAID 352 card using the procedure below. For reasons why you might want to replace your RAID controller card, see [Upgrading from a DAC960 card to an AcceleRAID 352 card](#) in this document.

To upgrade from a DAC960 card to an AcceleRAID 352 card, refer to the procedure [Upgrading from a DAC960 card to an AcceleRAID 352 card](#) in this document.

**Caution:** Replacing a RAID card with one that is not the same model will result in a system failure.

#### Requirements

Before replacing the RAID card, you will need:

- a Phillips screwdriver
- a antistatic wrist strap
- the replacement RAID card (same model as current card)

#### To replace a Mylex AcceleRAID 352 card

- 1 Ensure that an updated backup tape exists. If one does not exist create one.
- 2 Power down the server and unplug the AC power cords.

- 3 Ensure that the antistatic strap is connected properly.
- 4 Remove the chassis cover and locate the installed RAID card and note its PCI slot.
- 5 Disconnect all cabling from the RAID card.
- 6 Use an adhesive label or a piece of tape to label each cable with its connection.
- 7 Loosen the screw located at the top of the card's faceplate.
- 8 Remove the card from the chassis.
- 9 Unpack the replacement Mylex AcceleRAID 352 PCI RAID card.
- 10 Insert the replacement card in the appropriate PCI slot.
- 11 Apply downward pressure until the card is evenly and securely seated in the slot.
- 12 Secure the card by tightening the screw at the top of the faceplate.
- 13 Connect RAID channel 0 on the controller to the appropriate drives.
- 14 Connect RAID channel 1 on the controller to the appropriate drives.
- 15 To ensure your BIOS settings are correct, complete the procedure "To set the drive geometry option for a Mylex AcceleRAID 352 card" in this document.

**Note:** If you replace your RAID card and the system does not start, call a Nortel Networks Customer Support representative.

## Installing AcceleRAID352 RAID Global Array Manager Software

The Global Array Manager offers a large number of utilities and monitoring functions. Once launched, Global Array Manager will maintain a real time Error log and Event Viewer and will also provide functions found in the EzAssist software which is embedded in the controller.

To allow you to control and monitor the AcceleRAID352 RAID controller within WindowsNT, the Mylex Global Array Manager (GAM) must to be installed. To install the AcceleRAID352 RAID Global Array Manager:

- 1 Boot and Login to Windows NT.
- 2 Insert NTRH8101 CD in the CD-ROM drive. A message will notify that this CD should not be used under Windows NT unless this is a 20xi series platform Select No to exit the menu.
- 3 On the My Computer applet, right click on the CDROM drive and select Explore.
- 4 In the \Common\AR352\GAM\ directory run Setup.exe. Click Next to continue.
- 5 In the "Select Components" window, deselect the Client and Server options and select "Workstation Array Manager". Click Next to continue.
- 6 Accept the default path for installation and select Next, twice, to continue.
- 7 Select No to deny enabling External Controller Support and Next, respectively to complete installation. The system will prompt for restarting the machine.
- 8 After restarting the machine, the installation is complete.

## Configuring RAID using a Mylex AcceleRAID 352 card

### Introduction

Before configuring the Mylex AcceleRAID 352 card, you must have access to the following items:

- driver disk
- firmware update (if necessary)

The minimum version of the RAID controller firmware and the EzAssist utility are specified below; however, if you have a newer version, you do not need to downgrade.

| AcceleRAID 352 | Version |
|----------------|---------|
| Firmware       | 6.00.00 |
| EzAssist       | 2.01-06 |

To check the version of the firmware, power up the system. The firmware version appears in the start-up messages.

To check the version of the EzAssist utility, power up the system and press Alt+R to enter the EzAssist utility. The version is displayed at the top of the first window that appears.

To update the firmware, you will require the BIOS or EzAssist utility. See [To flash upgrades in the AcceleRAID 352 controller](#) in this document.

**Note:** The Mylex AcceleRAID 352 RAID controller card includes a feature called Drive Coercion. This feature allows drive capacities from different vendors to appear to be the same size. This feature also allows you to replace a dead existing drive with a drive of the same capacity from a different manufacturer, even if it is slightly smaller physically. This feature rounds up the actual capacity to an integral number of chunks (the truncation factor). The truncation factor is in the range of five percent of the hard drive. System pack sizing is not required while creating system packs with this controller.

To configure the Mylex AcceleRAID 352 controller card, regardless of whether an operating system is installed on your computer, you can run the RAID EzAssist utility from the Mylex controller's BIOS at any system start up.

## To set the drive geometry option for a Mylex AcceleRAID 352 controller card

Newer Mylex RAID cards have an option that you must set before you configure them. Complete the following steps to properly configure your The Mylex AcceleRAID 352 RAID card.

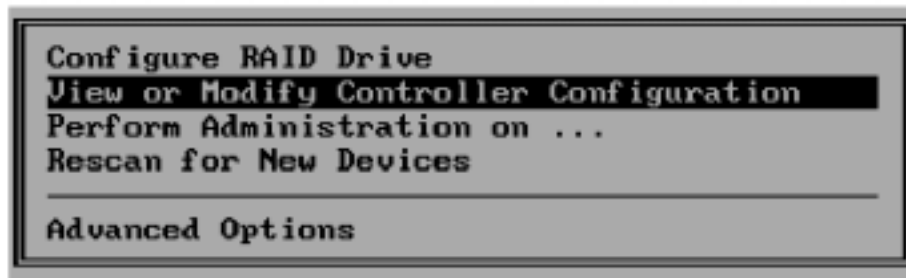
- 1 Power up the system.
- 2 When you see the Mylex AR352 BIOS messages, press Alt+M to enter the BIOS menu.  
**Result:** The AR352 BIOS options menu appears.
- 3 Use the arrow keys to move to the 2 GB Drive Geometry option, and then press Enter.  
**Result:** The system prompts you to use 8 GB Drive Geometry and to confirm the change.  
**Note:** Your controller may already be configured as an 8 GByte Drive geometry. If it is already configured, press Esc to exit.
- 4 Confirm the change, and then press Esc to escape this menu.

## To configure the RAID system packs

If there is no operating system installed on your server, or if a faulty RAID controller has corrupted the data on the drives, you need to configure your RAID system packs.

- 1 Shut down and then power up the system.
- 2 When prompted during the boot, press Alt+R to enter the EzAssist configuration utility.  
**Result:** The system loads the EzAssist configuration software.
- 3 Allow EzAssist to scan the SCSI bus(es) and target drives.  
**Result:** After scanning has completed, the following message appears:  

```
No existing RAID configuration has been detected. Would
you like to configure a RAID drive now?
```
- 4 Use the arrow keys to select No and press Enter.  
**Result:** The system loads the RAID software and lists the RAID controller installed.
- 5 Select the RAID controller listed and press Enter.  
**Result:** The main task menu appears.
- 6 From the main task menu, use the arrow keys to highlight View or Modify Controller Configuration, and then press Enter.



**Result:** The Controller Configuration window appears.

- 7 Press Enter to access the Properties.

**Result:** The Properties menu appears.

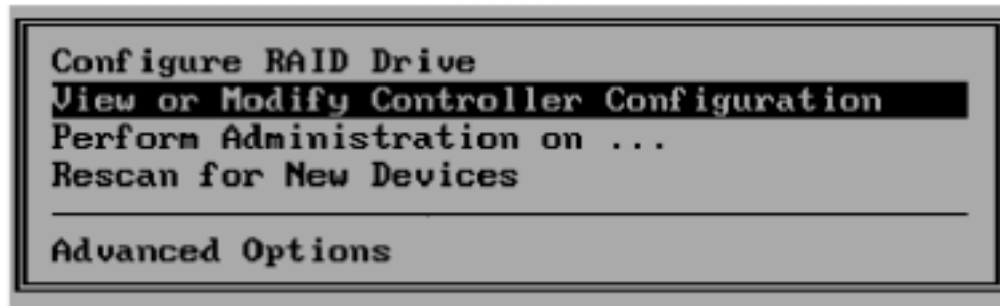


- 8 Press Enter to continue.
- 9 Use the arrow keys to highlight the Startup menu item, and then press Enter.

**Result:** Ensure the following default settings appear:

- Disk Spin Up: By Controller
- Number of Disk Drives per spin: 2
- Initial Delay: 0
- Delay between Spins: 6.

- 10 Select OK to accept the startup property changes, and then press Enter.
- 11 In the Save Changes window, use the arrow key to select Yes, and then press Enter.
- 12 If no further changes are required, press Esc until the main task menu appears.



- 13 From the main menu, choose Configure RAID Drive, and then press Enter.

**Result:** The Configure RAID Drive menu appears.



- 14 Select [Custom] and then press Enter.

**Result:** A submenu appears.

- 15 Select Create a New Disk Array, and then press Enter.

**Result:** The Disk Array Configuration menu appears.



- 16 Use the arrow keys to perform the following sub steps to set each of the RAID packs.



For example, to set the first of the three RAID packs for the 702t:

- a. Select Drive Channel ID 0:00, and then press Enter to add it to the first pack.
- b. Select Drive Channel ID 1:04, and then press Enter to add it to the first pack.

For example, to set the first of the five RAID packs for the 1001t:

- a. Select Drive Channel ID 0:00, and then press Enter to add it to the first pack.
- b. Select Drive Channel ID 1:00, and then press Enter to add it to the first pack.

- 17** Press the Tab key to select Save Array and then press Enter.

**Result:** The Logical Drive Configuration menu appears and the system prompts you to define the logical drives.

- 18** Select No and press Enter because you must define additional RAID packs.

- 19** Add the next pair of Channel IDs to the next RAID pack. Use the appropriate table below to determine the Channel IDs to add to each of the RAID packs for the server you are using.

### 702t RAID Packs

| System Pack | Location of drives in internal drive bay | SCSI Channel and ID |
|-------------|------------------------------------------|---------------------|
| A           | Bay1                                     | 0:00                |
|             | Bay4                                     | 1:04                |
| B           | Bay2                                     | 0:01                |
|             | Bay5                                     | 1:05                |
| C           | Bay3                                     | 0:03                |
|             | Bay6                                     | 1:06                |

### 1001t RAID Packs

| System Pack | Location of drives in internal drive bay | SCSI Channel and ID |
|-------------|------------------------------------------|---------------------|
| A           | Top Drive Bay Slot 1 (leftmost)          | 0:00                |
|             | Bottom Drive Bay Slot 1                  | 1:00                |
| B           | Top Slot 2                               | 0:01                |
|             | Bottom Slot 2                            | 1:01                |
| C           | Top Slot 3                               | 0:10                |
|             | Bottom Slot 3                            | 1:10                |
| D           | Top slot 4                               | 0:03                |
|             | Bottom slot 4                            | 1:03                |
| E           | Top slot 5 (rightmost)                   | 0:04                |
|             | Bottom slot 5 (rightmost)                | 1:04                |

- 20** Press the Tab key to select Save Array and press Enter.

**Result:** The Logical Drive Configuration menu appears and the system prompts you to define the logical drive.

- 21 If you need to create additional RAID packs, select No and press Enter. Repeat steps 16 and 17 until all packs are created.
- 22 Once you have created the last RAID pack, the system displays the Logical Drive Definition window.

**Note:** If the system warns you that you are combining two drives of different sizes, make sure that the hard disks you have installed are approved by Nortel.



**Note:** The above window does not reflect a valid configuration.

- 23 Ensure that the RAID Level is 1, and that the Write Cache option is set to Thru (the default).

**Note:** If these settings differ, you can change them using the plus/minus (+/-) keys when the option is highlighted.

- 24 To add the logical drive, press Tab to switch the focus to the buttons, and then, with Add Drive selected, press Enter. Repeat these steps until all logical drives are defined.
- 25 When all logical drives are defined, apply the configuration to the controller by selecting Apply and pressing Enter.

**Result:** The system packs are defined and the configuration is written to the controller NVRAM.

**Note:** No drive initialization is necessary if the drives are new.

- 26 Allow the above process to complete, and then press Esc until the Exit confirmation window appears.
- 27 Select Yes to exit the EzAssist utility and press Enter.

**Result:** The system restarts and is now ready for the OS installation.

## To flash upgrades in the AcceleRAID 352 controller

Use this procedure if you need to upgrade the firmware.

- 1 Shut down and restart the server.
- 2 When prompted during the reboot, press Alt+R to enter the EzAssist configuration utility.

**Result:** The system loads the RAID software and lists the RAID controller installed.

- 3 Select the RAID controller listed and press Enter.  
**Result:** The main task menu appears.
- 4 Select Advanced Options and press Enter.
- 5 Have the disk that contains the firmware, BIOS, boot block, or utility image files ready and, on the Advanced Options menu, select Update Flash Code and press Enter.
- 6 Insert the disk into the disk drive.
- 7 Type the path and the name of the file that needs to be flashed in the space provided, and then press Enter.  
**Result:** The image is read from the floppy disk, and the system prompts you to press Enter.
- 8 Press Enter to flash the image into the RAID controller.
- 9 Allow the above process to complete, and then press Esc until the Exit confirmation window appears.
- 10 Select Yes to exit the EzAssist utility and press Enter.

## Upgrading from a DAC960 card to an AcceleRAID 352 card

You may need to upgrade an old RAID controller such as DAC960 to a new RAID controller such as AcceleRAID 352 in the following situations:

- upgrading a functional DAC960 to AcceleRAID 352 for performance reasons
- replacing a faulty DAC960 RAID controller with AcceleRAID 352

**Note:** You must install the driver for the new card before you remove the old card.

**Attention:** Always create a database backup and Platform Recovery Disk before proceeding with RAID controller upgrades.

## To upgrade to an AcceleRAID 352 card from a functional DAC960 card

**Note:** It is important that you backup your DAC960 RAID configuration. If your system fails to restart with the new AcceleRAID 352 card, and you have revert to the DAC960, you can use the backup disk to restore your RAID configuration for the DAC960 and boot into full service. (This procedure begins with instructions for creating this backup disk.)

To backup your DAC960 RAID configuration:

- 1 Insert the DAC960 RAID configuration utility disk (NTRH8003) in drive A.
- 2 Reboot the server.
- 3 At the A:\ prompt, type `cd daccfg`.  
**Result:** The system changes to this directory.
- 4 At the A:\ daccfg prompt, type `daccf`.

**Result:** The DAC960 utility Main Menu starts.

- 5 Select Tools and press Enter.

**Result:** The Tools menu appears.

- 6 Select Backup and Restore and press Enter.

**Result:** The Backup and Restore Config menu appears.

- 7 Select Backup Configuration and press Enter.

- 8 Insert a floppy disk, enter a file name (for example, raid\_config), and press enter.

**Result:** The configuration is saved to disk.

- 9 Remove the floppy disk and store it in a safe place in case it is needed to restore the configuration.

- 10 Press ESC to exit from the utility.

- 11 Restart the system.

- 12 Restart Windows NT.

To install the driver:

- 1 Choose Settings > Control Panel.

- 2 Select SCSI Adapters and then click the Driver tab.

- 3 Click Add.

- 4 Insert the floppy disk containing the driver for the AcceleRAID 352 controller, and then click Have Disk.

**Note:** These drivers must be created from the NTRH8101 CD before you proceed with the upgrade. For instructions, refer to the procedure [To create drivers from the NTRH8101 driver CD](#) in this document.

- 5 Accept the driver that corresponds to the AcceleRAID 352.

**Result:** The files are copied on the system.

- 6 When the system prompts you to restart your computer, click No.

- 7 Shut down the system and power it off.

To install the Mylex AcceleRAID 352 controller card:

- 1 Remove the DAC960 card and carefully replace it with the AcceleRAID 352 card ensuring that cables are connected correctly to the same channel headers. For instructions, see [Replacing a Mylex AcceleRAID 352 card](#) in this document.

- 2 Once you have replaced the card, you must check that the drive geometry option is set to 8 Gbyte. Refer to the procedure "To set the drive geometry option for a Mylex AcceleRAID 352 card" in this document.

- 3 Shut down and power up the system.

- 4 To ensure that the new card is installed, log on to Windows NT and follow steps 13 and 14 to get to the Driver tab. The word Started should appear beside the driver you just added.

## To upgrade to AcceleRAID 352 from a faulty DAC960

If the disk controller is faulty, then the data on the drive could be corrupted.

If you have an extra DAC960 card, you can install the extra card and try to restore the data if you have a backup of your RAID configuration on disk. If the data is still intact, follow the previous procedure, "To upgrade to an AcceleRAID 352 card from a functional DAC960 card" in this document.

If you cannot recover your data, Nortel Networks recommends that you reinitialize all drives and install a new Mylex AcceleRAID 352 controller. After you install the controller, you can bring the system to the initial stage by reinstalling the operating system and performing a Data Restore.

## To create drivers from the NTRH8101 driver CD

To create a floppy disk containing a driver from the NTRH8101 driver CD, you must boot to the CD. You can do this using any server or PC. To do this, you must configure the boot sequence in the system BIOS to search for the CD ROM device before the hard drive. When you boot to the CD, a menu appears from which you can choose the correct system and transfer the appropriate driver to the floppy disk.

## Using the AcceleRAID 352 Workstation Array Manager software

The Workstation Array Manager has several utilities and monitoring functions. Once launched, the Workstation Array Manager maintains a real-time Error log and Event Viewer, and also includes functions that can be found in the EzAssist software that is embedded in the controller.

To control and monitor the AcceleRAID 352 RAID controller within Windows NT, you must install the Mylex Workstation Array Manager.

## To install the Mylex Workstation Array Manager

- 1 Start the server and log on to Windows NT.
- 2 Insert the CD NTRH8101 (issue 1.02 is the minimum version) into the CD drive.  
**Result:** A message notifies you that this CD should not be used under Windows NT unless the dataform is a 20xi series.
- 3 Select No to exit the menu.
- 4 Double-click My Computer,
- 5 Right-click the CD-ROM drive, and select Explore.
- 6 Access the \Common\AR352\GAM\ directory and run Setup.exe.
- 7 Click Next.

- 8 In the Select Components window, deselect the Client and Server options, and then select Workstation Array Manager.
- 9 Click Next.
- 10 Accept the default path for installation and click Next twice.
- 11 Click No to deny enabling External Controller Support.
- 12 Click Next, and then click Finish to complete installation.

**Result:** The system prompts you to restart the server.

- 13 Restart the server.

**Result:** The installation is complete. If you wish, you can add the Workstation Array Manager software to your StartUp folder so that this program is always running. See the operating system's online help for instructions.

## Performing maintenance procedures on a system with an AcceleRAID 352 card

If you are using a Mylex AcceleRAID 352 card on your 702t or 1001t system, the five procedures in this section describe how to check, split, recover, rebuild and backup your RAID drives. These procedures are revised versions of similar procedures in the *Software Installation and Maintenance Guide* (Standard 1.0) for Release 4.0 of Symposium Call Center Server which describe how to perform these procedures for systems using a DAC960 card. (See Chapter 11, "Backing up data," on page 309 of the *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide*, Section B.)

This section contains procedures for the following:

- performing a consistency check on a 702t or 1001t with an AcceleRAID 352 card
- splitting the RAID drives on a 702t or 1001t with an AcceleRAID 352 card
- recovering a 702t or 1001t system with an AcceleRAID 352 card running in split mode
- rebuilding the RAID drives on a 702t or 1001t with an AcceleRAID 352 card
- performing a backup on a 702t or 1001t system with an AcceleRAID 352 card

## Performing a consistency check on a 702t or 1001t with an AcceleRAID 352 card

### Introduction

Perform regular consistency checks before backing up or splitting a RAID drive. The consistency check is time-consuming, so you might prefer to perform it a few days before splitting or backing up your RAID drives.

A consistency check is not necessary every time you split the RAID drives. A consistency check of a 4 Gbyte volume takes approximately 45 minutes.

### To perform a consistency check

- 1 Shut down and restart the server.
- 2 When prompted during the reboot, press Alt+R to enter the EzAssist configuration utility.  
**Result:** The system loads the RAID software and lists the RAID controller installed.
- 3 Select the RAID controller listed and press Enter.  
**Result:** The main task menu appears.
- 4 Select Perform Administration On and press Enter.

- Result:** The disk task menu appears.
- 5 Select Logical Drive and press Enter.
- Result:** A list of logical drives appears.
- 6 Choose the first logical drive and press Enter.
- Result:** The logical drive task menu appears.
- 7 Select Advanced Options and press Enter.
- Result:** The advanced options task menu appears.
- 8 Select Check Consistency and press Enter.
- Result:** The Consistency Check dialog box appears.
- 9 Select No to avoid automatic repair of drive inconsistencies and press Enter.
- Result:** The consistency check runs in the background.
- 10 To check the progress of the consistency check, press Esc to exit to the main task menu. Select Advanced Options and press Enter. Select Background Tasks and press Enter.
- Result:** A list of background tasks appears showing task progress.
- 11 To update the list, select Refresh and press Enter.
- 12 Repeat steps 6 to 11 for the remaining system drives.
- For a 702t, check drives 1:04, 1:05 and 1:06.
  - For a 1001t, check drives 1:00, 1:01, 1:03, 1:04, and 1:10.
- 13 Once the consistency check is complete for each logical drive, use the Esc key to exit from the EzAssist configuration utility.

## Splitting the RAID drives on a 702t or 1001t with an AcceleRAID 352 card

### Introduction

Split the RAID drives when you are converting the server, upgrading the server, or applying PEPs or service update packs.

### About splitting the RAID drives

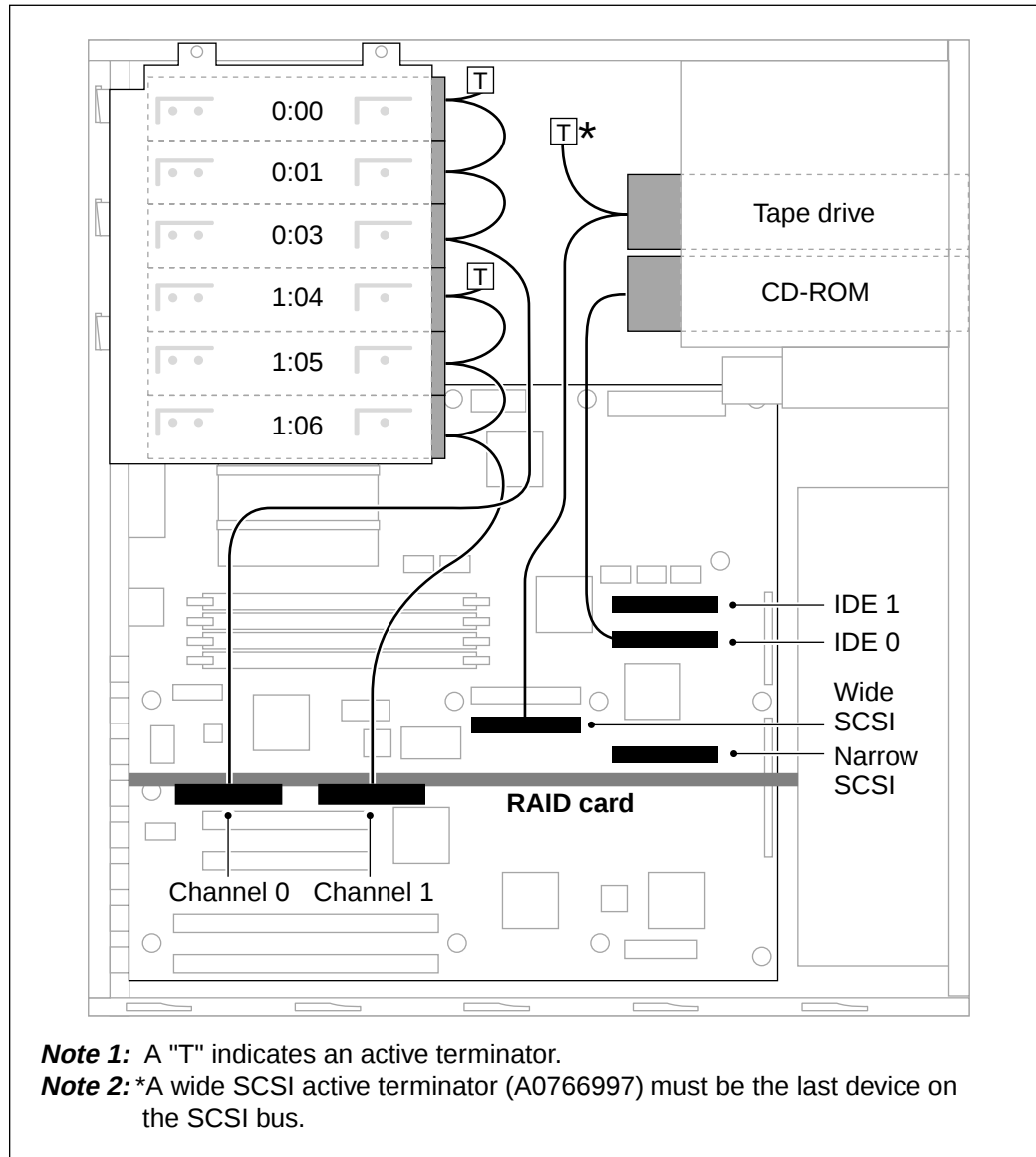
When you split the RAID drives, you are breaking the mirrored image of the RAID hard drives (channels 0 and 1) and disabling the channel 1 hard drives. Any software activity that is performed on the system affects only the channel 0 hard drives. The channel 1 hard drives continue to have the current system configuration, and you can use them to rebuild the RAID hard drives if a problem occurs during conversion. Splitting the RAID drives is supported for 702t and 1001t platforms with the following:

- a Mylex AcceleRAID 352 Controller (Firmware version 6.00.01)
- RAID 1
- Platform Upgrade Kit



## Platform configurations

The 702t system has three pairs of system drives set up in a RAID configuration. The first drive pair should be labeled 0:00 and 1:04, the second pair 0:01 and 1:05, and the third pair 0:03 and 1:06. Each pair consists of a channel 0 drive and a channel 1 drive, indicated by the first number in the drive label (either 0 or 1). The following diagram shows the SCSI cable connections for the two channels to the RAID controller card.



G100812

The 1001t system is hot-swappable. It has five pairs of system drives. The first drive pair should be labeled 0:00 and 1:00, the second 0:01 and 1:01, the third 0:03 and 1:03, the fourth 0:04 and 1:04, and the fifth 0:10 and 1:10. Each pair consists of a channel 0 drive and a channel 1 drive, indicated by the first number in the drive label (either 0 or 1); channel 0 is the top set of drives, and channel 1 is the bottom set of drives.

Before you begin:

- Make sure that the RAID subsystem is cabled as specified in the *Meridian Application Server Installation Guide* for your hardware platform.  
**Note:** Ensure that the SCSI cable is correctly installed. Reversed cables increase the risk of data loss.
- Back up the RAID Controller configuration to a disk.
- Make sure you have a full or database tape backup available.
- Make sure that the Windows NT Repair disk is up to date.
- Nortel Networks recommends that you perform a consistency check. See [Performing a consistency check on a 702t or 1001t with an AcceleRAID 352 card](#) in this document.  
**Note:** A consistency check is not necessary every time you split the RAID drives.

## To view array configuration

Before proceeding with splitting RAID drives, it is useful to make note of the configuration of logical to physical drives.

- 1 Shut down and restart the server.
- 2 When prompted during the reboot, press Alt+R to enter the EzAssist configuration utility.  
**Result:** The system loads the RAID software and lists the RAID controller installed.
- 3 Select the RAID controller listed and press Enter.  
**Result:** The main task menu appears.
- 4 Select Perform Administration On and press Enter.  
**Result:** The disk task menu appears.
- 5 Select Logical Drive and press Enter.  
**Result:** A list of logical drives appears.
- 6 Select a logical drive and press Enter.  
**Result:** The logical drive task menu appears.
- 7 Select View or Modify Drive Configuration and press Enter.  
**Result:** The physical disk configuration appears for the logical drive.

- 8 To check the remaining drives, press Esc to return to the list of logical drives and repeat steps 6 and 7 for each drive.

## To split the RAID drives

- 1 Shut down and restart the server.
- 2 When prompted during the reboot, press Alt+R to enter the EzAssist configuration utility.

**Result:** The system loads the RAID software and lists the RAID controller installed.

- 3 Select the RAID controller listed and press Enter.

**Result:** The main task menu appears.

- 4 If you do not have a current backup of your RAID controller configuration, make one before proceeding, as follows:

- a. Select Advanced Options and press Enter.
- b. Select Backup Configuration and press Enter.

**Result:** The Backup Configuration dialog appears.

- c. Insert a floppy disk, enter a file name (for example, raid\_config), and press Enter.

**Result:** The configuration is saved to disk.

- d. Store the floppy in a safe place in case it is needed to restore the configuration.
- e. Return to the main task menu by pressing Esc twice.

- 5 Select Perform Administration On and press Enter.

**Result:** The disk task menu appears.

- 6 Select Physical Device and press Enter.

**Result:** A list of physical drives appears.

- 7 Choose a physical drive for channel 1 and press Enter.

- On a 702t, the channel 1 drives are 1:04, 1:05 and 1:06.
- On a 1001t, the channel 1 drives are 1:00, 1:01, 1:03, 1:04, and 1:10.

**Result:** The physical drive task menu appears.

- 8 Select Advanced Options and press Enter.

**Result:** The advanced options task menu appears.

- 9 Select Make Drive Offline and press Enter.

- 10 Select Yes in response to the warning and confirmation messages.

**Result:** The utility shows the selected drive as offline.

- 11 Repeat steps 7 to 10 to take the remaining channel 1 drives offline.

- 12 When all channel 1 drives are offline, use the Esc key to exit the EzAssist configuration utility.

- 13 Select Yes in response to the Exit confirmation message.

- 14 When prompted, power off the server.

**15** Disconnect the channel 1 drives you marked offline as follows:

- For a hot swap system (1001t platform), unseat the channel 1 hard drives from their slots, but do not remove them.
- For a non-hot swap system (702t platform), disconnect the SCSI cables for channel 1 (see the preceding illustration).

For detailed instructions, see the *Meridian Application Server Installation and Maintenance Guide* for your platform.

**16** If you decide to remove the drives, be sure to label them with their SCSI channel and ID and store them in antistatic bags and suitable foam material.

**Caution:** If you label drives incorrectly, you may not be able to recover your system using these drives.

**17** Power up the server.

**Result:** When the server starts, the system displays messages indicating that the system is critical and that there are several dead drives. The list of dead drives should include all of the channel 1 drives that you made offline in this procedure.

**18** To double-check that the correct drives are offline, log on to Windows NT.

**19** From the Start menu, select Programs and then Mylex Workstation Array Manager.

**Result:** The system displays the status of the drives.

**20** Check that all channel 1 drives are highlighted as offline and all channel 0 drives are highlighted as online.

You can now upgrade the server on the channel 0 drives; your original configuration is saved on the offline channel 1 drives.

## Recovering a 702t or 1001t system with an AcceleRAID 352 card running in split mode

### Introduction

Nortel Networks recommends that you split your RAID drives before making any major changes to your server, such as upgrading the server software or applying PEPs. If the process fails, you can use this procedure to restore your system to its former state.

This procedure assumes that your channel 0 drives are the ones on which the upgrade failed, and that the channel 1 drives contain the original configuration you want to use for recovery.

### To recover a system running in split mode

- 1** Shut down the server.
- 2** Power down the server.
- 3** Reconnect the channel 1 hard drives to be used for recovery as follows:

- For a hot-swap system (1001t platform), insert the channel 1 drives into their slots until they are firmly connected. (Do not remove the channel 0 drives.)
- For a non-hot-swap system (702t platform), connect the channel 1 SCSI cable. (Do not disconnect the channel 0 SCSI cable.)

For detailed instructions, see the *Meridian Application Server Installation and Maintenance Guide* for your platform.

- 4 Power up the server.
- 5 When prompted during the reboot, press Alt+R to enter the EzAssist configuration utility.

**Result:** The system loads the RAID software and lists the RAID controller installed.

- 6 Select the RAID controller listed and press Enter.

**Result:** The main task menu appears.

- 7 Select Perform Administration On and press Enter.

**Result:** The disk task menu appears.

- 8 Select Physical Device and press Enter.

**Result:** A list of physical drives appears. You must mark all channel 0 drives offline.

- 9 Select one of the channel 0 drives and press Enter.

- On a 702t, the channel 0 drives are 0:00, 0:01 and 0:03.
- On a 1001t, the channel 0 drives are 0:00, 0:01, 0:03, 0:04, and 0:10.

**Result:** The physical drive task menu appears.

- 10 Select Advanced Options and press Enter.

- 11 Select Make Drive Offline and press Enter.

- 12 Select Yes in response to the warning and confirmation messages.

**Result:** The system takes the channel 0 drive you selected offline.

- 13 Repeat steps 9 to 12 for the remaining drives for channel 0.

**Result:** The channel 0 drives are offline. Now, you must mark all channel 1 drives online.

- 14 Select one of the channel 1 drives and press Enter.

- On a 702t, the channel 1 drives are 1:04, 1:05 and 1:06.
- On a 1001t, the channel 1 drives are 1:00, 1:01, 1:03, 1:04, and 1:10.

**Result:** The physical drive task menu appears

- 15 Select Advanced Options and press Enter.

- 16 Select Make Drive Online and press Enter.

- 17 Select Yes in response to the warning and confirmation messages.

**Result:** The system puts the channel 1 drive you selected online.

- 18 Repeat steps 14 to 17 for the remaining drives for channel 1.

- 19 When all channel 0 drives are offline and all channel 1 drives are online, use the Esc key to exit from the EzAssist configuration utility.
- 20 Select Yes in response to the exit confirmation message.  
**Result:** The system prompts you to either power down the server or press Enter to reboot.
- 21 Press Enter to reboot.  
**Result:** When the server starts, the system displays messages indicating that the system is critical and that there are several dead drives. The list of dead drives should include all of the channel 0 drives that you made offline in this procedure.
- 22 To ensure the recovery is successful, log on to Windows NT.
- 23 From the Start menu, select Programs and then Mylex Workstation Array Manager.  
**Result:** The system displays the status of the drives.
- 24 Check that all channel 0 drives are listed as offline and all channel 1 drives are listed as online.  
**Result:** The server is now running on its original software configuration on the channel 1 drives.

When you are confident of system operation, proceed to rebuild the drives. See [Rebuilding the RAID drives on a 702t or 1001t with an AcceleRAID 352 card](#) in this document.

If you want to rebuild the drives while the system is online, you can use the Mylex Workstation Array to restore full RAID configuration. Do this only when there is low to no traffic, since rebuilding the drives uses 50 percent of the processor.

## Rebuilding the RAID drives on a 702t or 1001t with an AcceleRAID 352 card

### Introduction

Use this procedure after you have split the RAID drives and you are confident with the operation of your system.

**Caution:** This procedure describes how to rebuild your *channel 1* drives following a successful upgrade or conversion on your *channel 0* drives. If you need to rebuild your *channel 0* drives *instead*, you can still use this procedure; however, replace all references to channel 1 drives with the corresponding channel 0 drives.

### Assumptions

This procedure assumes that you are rebuilding the RAID drives using the drives that were split previously. If you are using new drives, make sure you do the following tasks:

Set the SCSI IDs for the new drives correctly.

- For a hot-swap system (1001t platform), set the SCSI ID to 0.
- For a non-hot-swap system (702t platform), use the jumpers on the drives to set the SCSI IDs correctly.

For detailed instructions, see the *Meridian Application Server Installation and Maintenance Guide* for your platform.

## To rebuild the RAID drives

- 1 Shut down the server.
- 2 Power down the server.
- 3 Reconnect the channel 1 hard drives.
  - For a hot-swap system (1001t platform), insert the channel 1 hard drives.
  - For a non-hot-swap system (702t platform), connect the SCSI cables for channel 1.

For detailed instructions, see the *Meridian Application Server Installation and Maintenance Guide* for your platform.
- 4 Power up the server.
- 5 When prompted during the reboot, press Alt+R to enter the EzAssist configuration utility.

**Result:** The system loads the RAID software and lists the RAID controller installed.
- 6 Select the RAID controller listed and press Enter.

**Result:** The main task menu appears.
- 7 Select Perform Administration On and press Enter.

**Result:** The disk task menu appears.
- 8 Select Physical Device and then press Enter.

**Result:** A list of the physical drives appears. You should see the channel 0 drives marked as online and the channel 1 drives marked as offline.
- 9 Select one of the offline drives from channel 1.
- 10 Select Advanced Options and press Enter.

**Result:** The advanced options task menu appears.
- 11 Select Rebuild Redundancy Data and press Enter.

**Result:** A warning message appears.
- 12 Select Yes and press Enter to continue.

**Result:** The utility rebuilds the selected hard drive as a background task. Depending on the system, rebuilding each drive may take from several minutes to twenty minutes.
- 13 To check the progress of the rebuild
  - a. Press Esc to exit to the main task menu.
  - b. Select Advanced Options and press Enter.

- c. Select Background Tasks and press Enter.

**Result:** A list of background tasks appears indicating the progress of the rebuild.

- 14 To update the list, select Refresh and press Enter.

- 15 Repeat steps 9 to 14 for each drive that needs to be rebuilt.

- For a 702t, rebuild drives 1:04, 1:05 and 1:06.
- For a 1001t, rebuild drives 1:00, 1:01, 1:03, 1:04 and 1:10.

- 16 When all channel 1 drives are rebuilt, use the Esc key to exit the EzAssist configuration utility.

- 17 Select Yes in response to the exit confirmation message.

**Result:** The system prompts you to either power down the server or press Enter to reboot.

- 18 Press Enter to reboot.

**Result:** The system restarts and is now running in full RAID configuration.

- 19 To ensure the rebuild is successful, log on to Windows NT.

- 20 From the Start menu, select Programs and then Mylex Workstation Array Manager.

**Result:** The system displays the status of the drives. All channel 0 and channel 1 drives should be marked as online.

## Performing a backup on a 702t or 1001t with an AcceleRAID 352 card

### Introduction

Full backup with RAID drives is supported for 702t and 1001t platforms with the following:

- a Mylex AcceleRAID 352 Controller (Firmware version 6.00.01)
- RAID 1
- a Platform Upgrade Kit

### Before you begin

- Ensure that the RAID subsystem is cabled as specified in the *Meridian Application Server Installation Guide* for your hardware platform.

**Note:** Ensure that the SCSI cable is correctly installed. Reversed cables increase the risk of data loss.
- Back up the RAID Controller configuration to a disk.
- Ensure that you have a full or database tape backup available.
- Ensure that the Windows NT Repair disk is up to date.
- Ensure that you have available a new or blank formatted disk for each RAID system pack.



- Nortel Networks recommends that you perform a consistency check (See [Performing a consistency check on a 702t or 1001t with an AcceleRAID 352 card](#) in this document).

**Note:** A consistency check is not necessary every time you split the RAID drives.

## To perform a RAID backup

- 1 Split the RAID drives by following steps 1 to 14 in [Splitting the RAID drives on a 702t or 1001t with an AcceleRAID 352 card](#) in this document.
- 2 Remove the hard drives marked DED, and label them with their SCSI channel and ID. For detailed instructions, see the *Meridian Application Server Installation and Maintenance Guide* for your platform.  
  
**Caution:** If you label drives incorrectly, you might not be able to recover your system using these drives.
- 3 Store the hard drives in antistatic bags and suitable foam material. (Use the original packaging, if it is available.)
- 4 Make sure that the SCSI IDs are set correctly on the new or blank formatted hard drives.
  - For a hot-swap system (1001t platform), set the SCSI ID to 0.
  - For a non-hot-swap system (702t platform), use the jumpers on the drives to set the SCSI IDs correctly.

For detailed instructions, see the *Meridian Application Server Installation and Maintenance Guide* for your platform.
- 5 Install the new hard drives.
  - For a hot-swap system (1001t platform), insert the hard drive.
  - For a non-hot-swap system (702t platform), replace the drives.

For detailed instructions, see the *Meridian Application Server Installation and Maintenance Guide* for your platform.
- 6 Rebuild the RAID drives, following steps 4 to 18 in “Rebuilding the RAID drives on a 702t or 1001t with an AcceleRAID 352 card” in this document.

## Section 8: Daylight savings time adjustments

### Introduction

Use the settings listed below for adjustments for daylight savings time. These settings override any instructions listed in the server installation and maintenance guides.

To set the correct settings for daylight savings time adjustments:

- 1** Log on to Windows NT as an administrator.
- 2** From the Windows Start menu, choose Settings > Control Panel.
- 3** Double-click the Date/Time icon.
- 4** Click the Time Zone tab.
- 5** If you are using a Meridian 1 switch and you are configuring a Symposium Call Center Server, ensure that Automatically adjust clock for daylight saving changes is unchecked. If you are configuring the Network Control Center, ensure that Automatically adjust clock for daylight saving changes is checked. If you are using a DMS switch, ensure that Automatically adjust clock for daylight saving changes is checked.
- 6** Click OK.

## Section 9: Database access from a Report Writer Application

### Introduction

The information given here supplements the information given in *Nortel Networks Symposium Call Center Server Historical Reporting and Data Dictionary Guide, Product Release 3.0, Standard 1.0 April 2000*.

To access the Symposium Call Center Server database from a report writer application, you must

- install ODBC and Sybase Open Client
- configure a Sybase Server entry
- configure an ODBC DSN

ODBC and Sybase Open Client are automatically installed and configured when you install Symposium Call Center Server client. If the client is not installed on the PC, you must install and configure these applications manually.

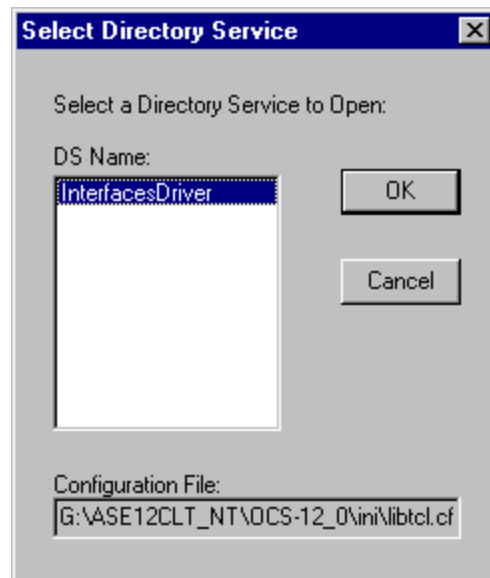
This section provides instructions for you to:

- define a connection to the server
- define the DSN

### To define a connection to the server

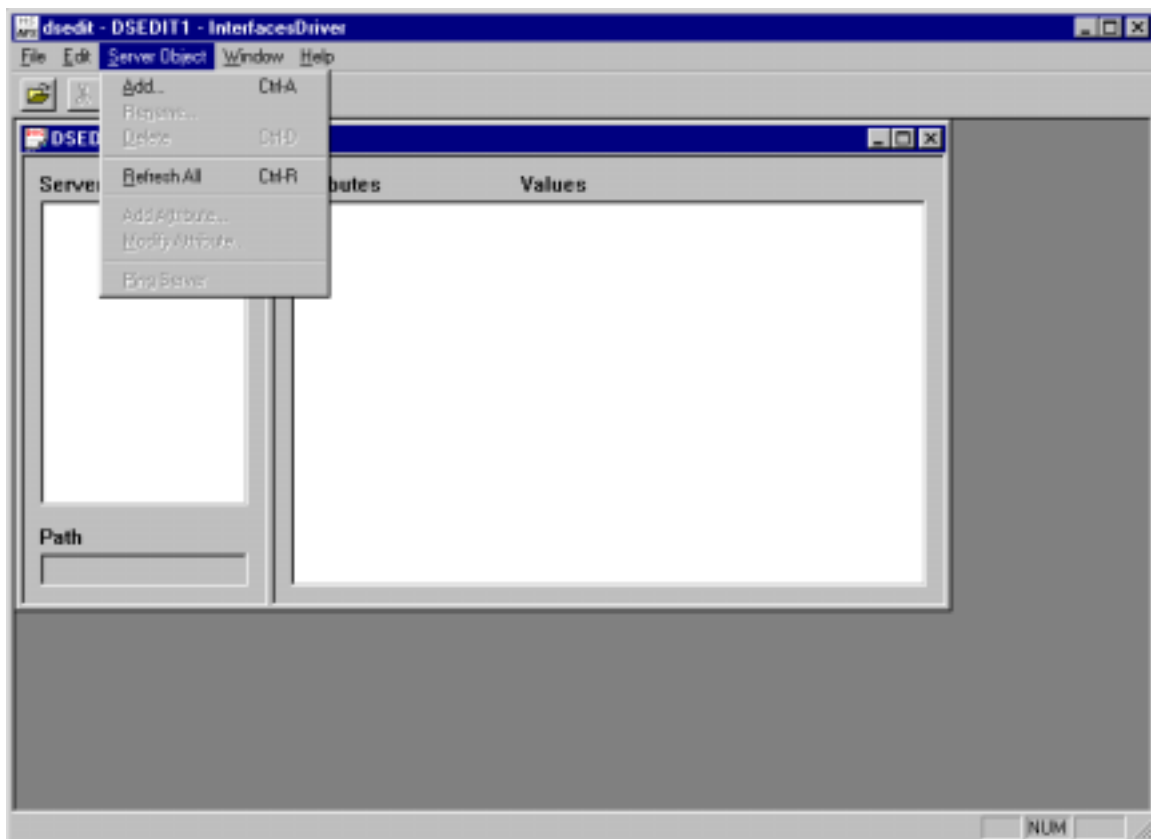
- 1 From the Windows Start menu, choose Run.
- 2 Type *dsedit*, and then click OK.

**Result:** The Select Directory Service window appears.



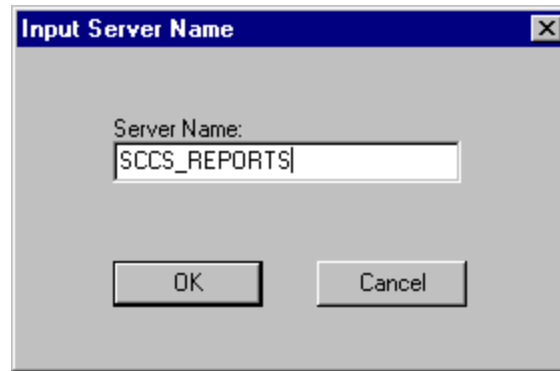
- 3 Click OK.

**Result:** The dsedit window appears.

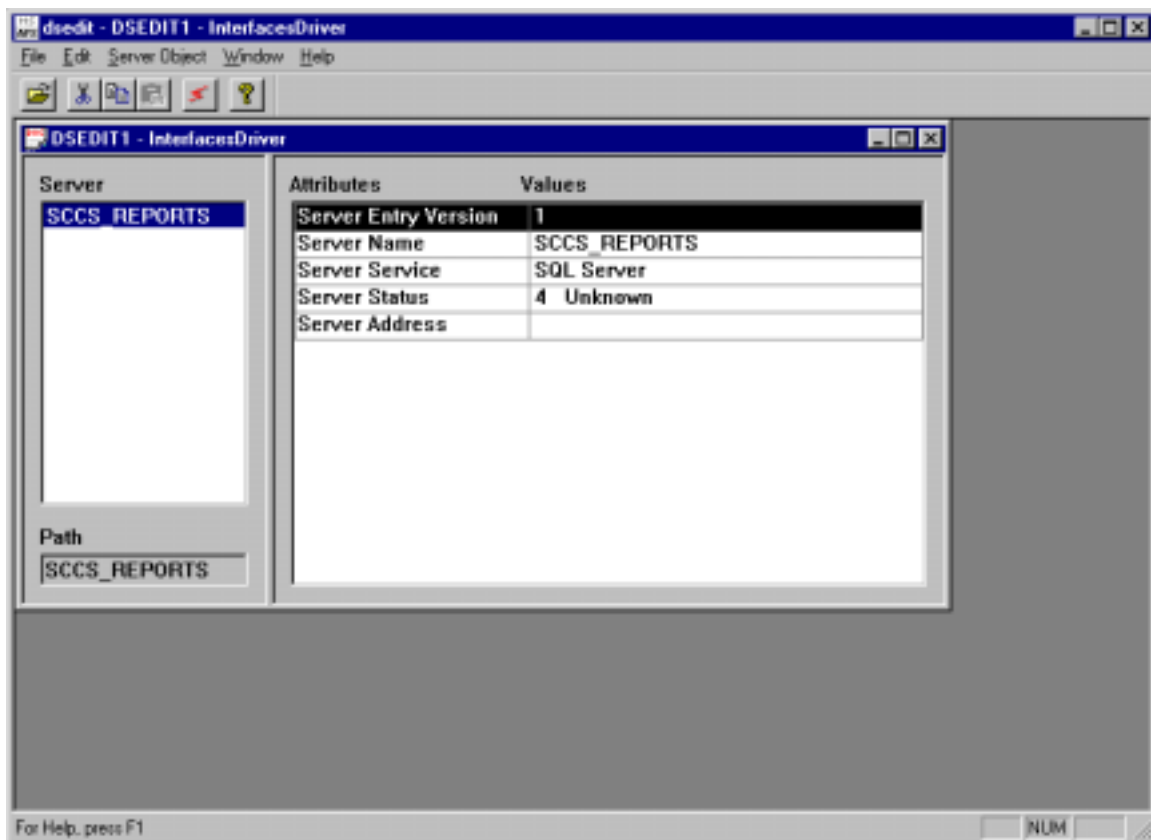


- 4 From the Server Object pull-down menu, choose Add.

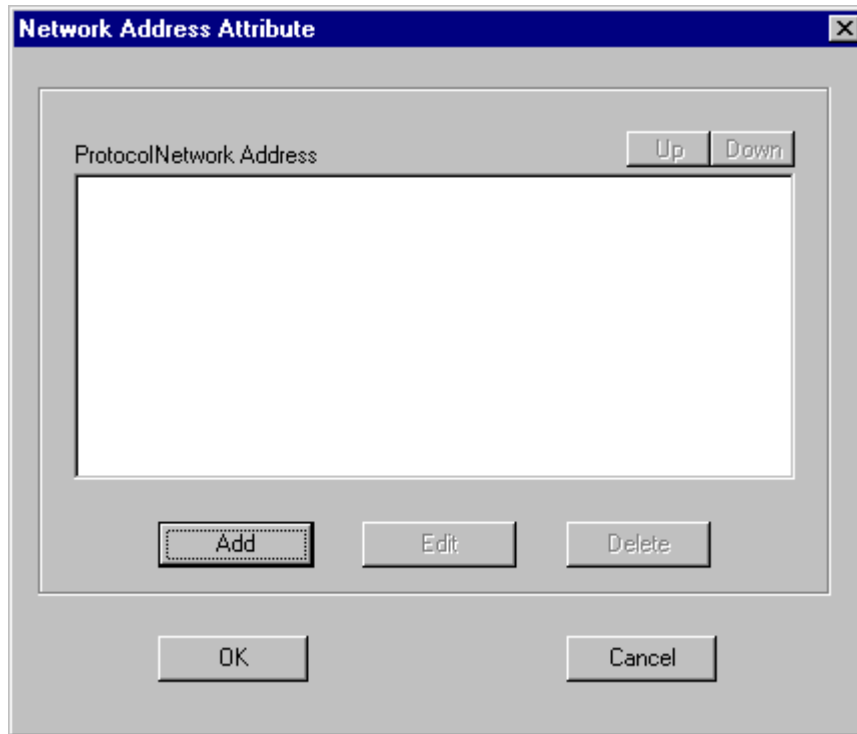
**Result:** The Input Server Name window appears.



- 5 In the Server Name box, type a name (for example, SCCS\_REPORTS), and then click OK.

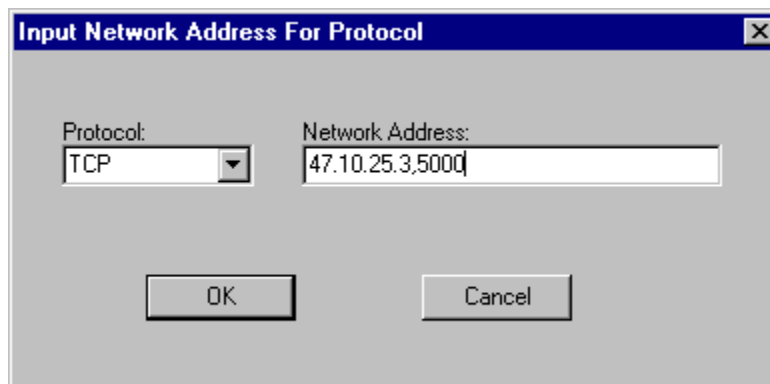


- 6 Double click the Server Address.
- Result:** The Network Address Attribute window appears.



- 7 Click Add.

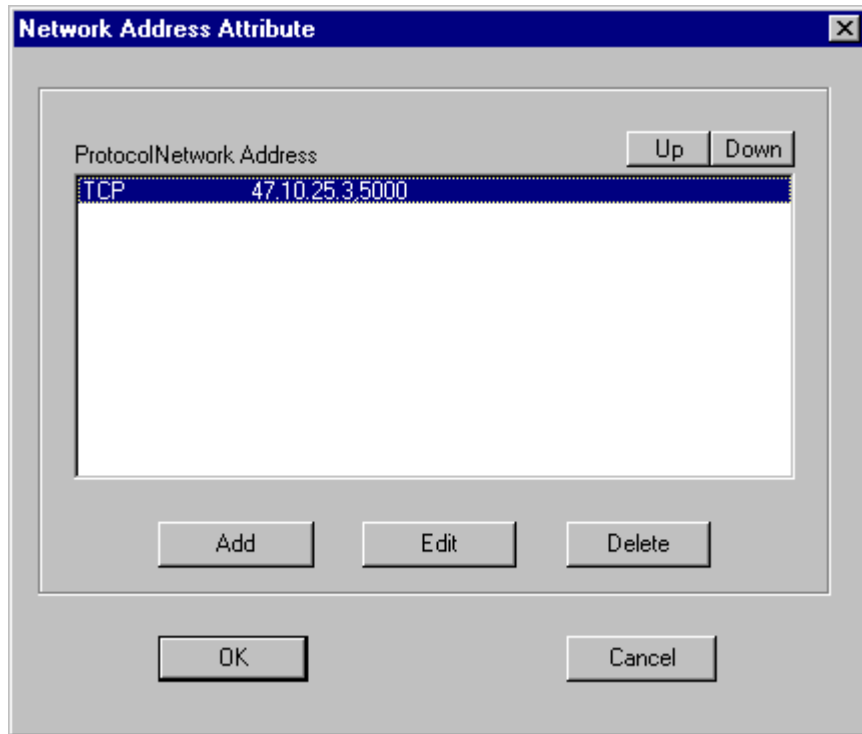
**Result:** The Input Network Address For Protocol window appears.



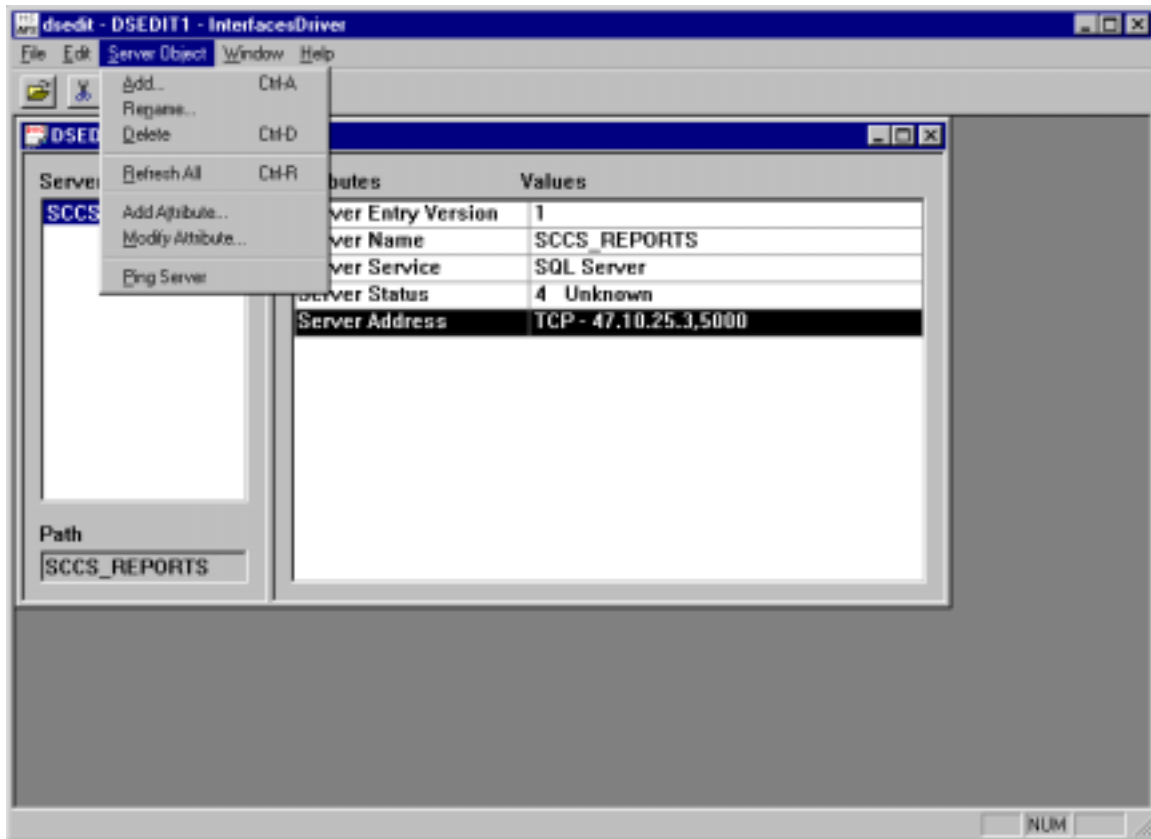
- 8 In the Network Address box, type <CLAN IP address of the Symposium Call Center Server>, 5000.

- 9 Click OK.

**Result:** The CLAN IP address appears on the Network Address Attribute window.

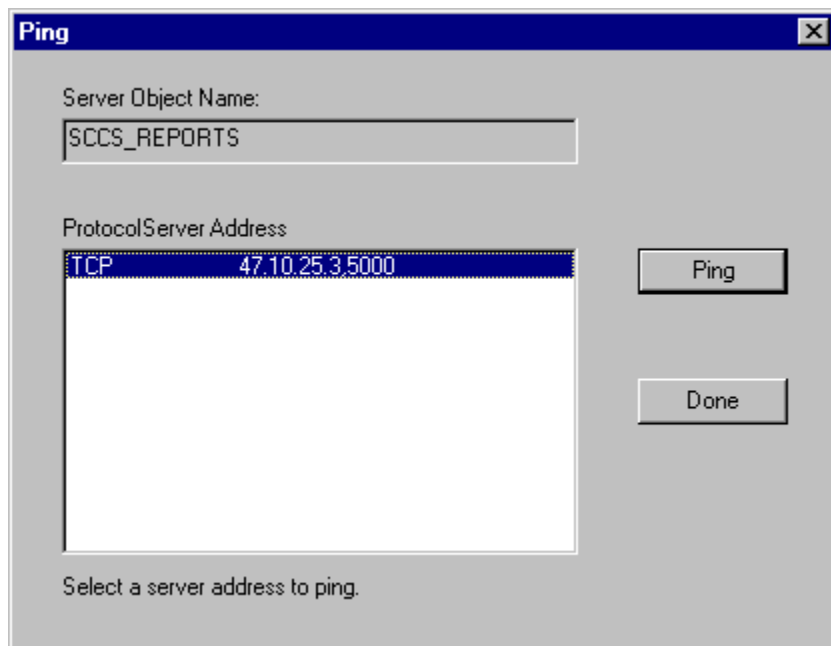


- 10 Click OK.



- 11 From the Server Object drop-down list box, choose Ping Server.

**Result:** The Ping window appears.



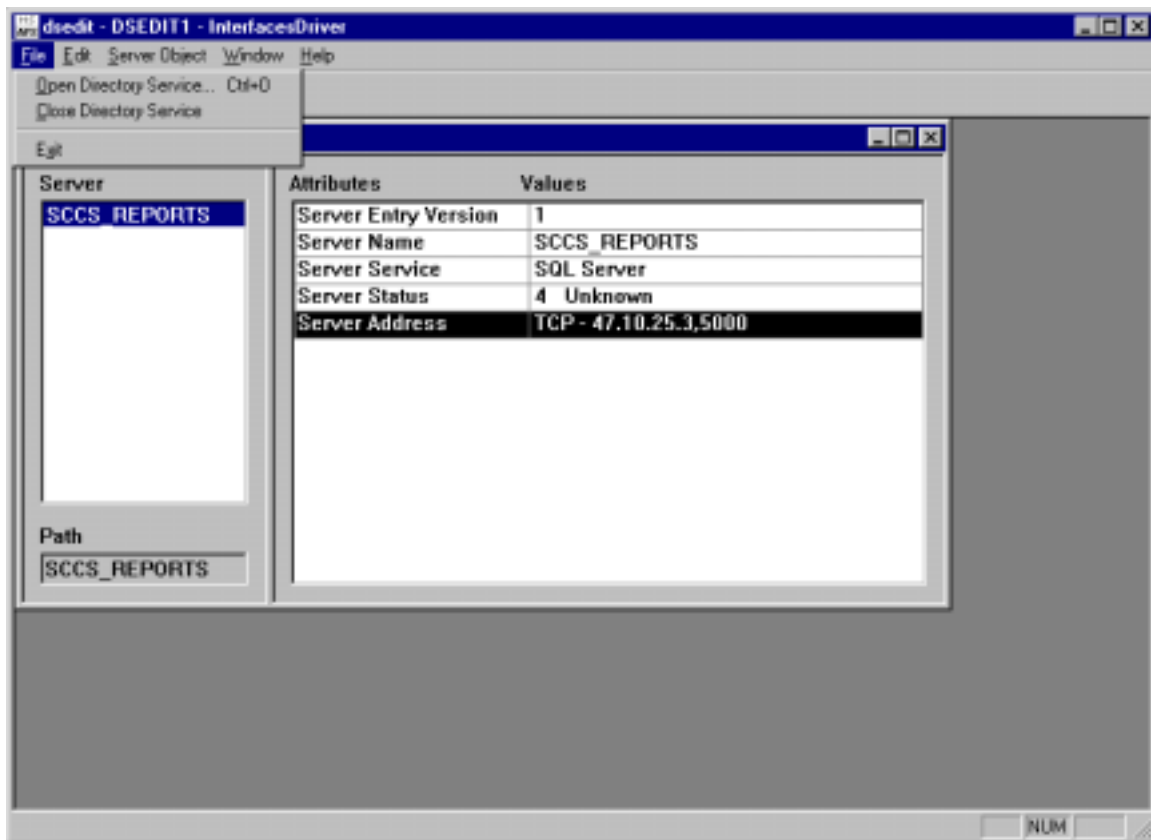


- 12 Click Ping.

**Result:** A message appears indicating that an open connection to the server succeeded. Click OK

- 13 Click Done.

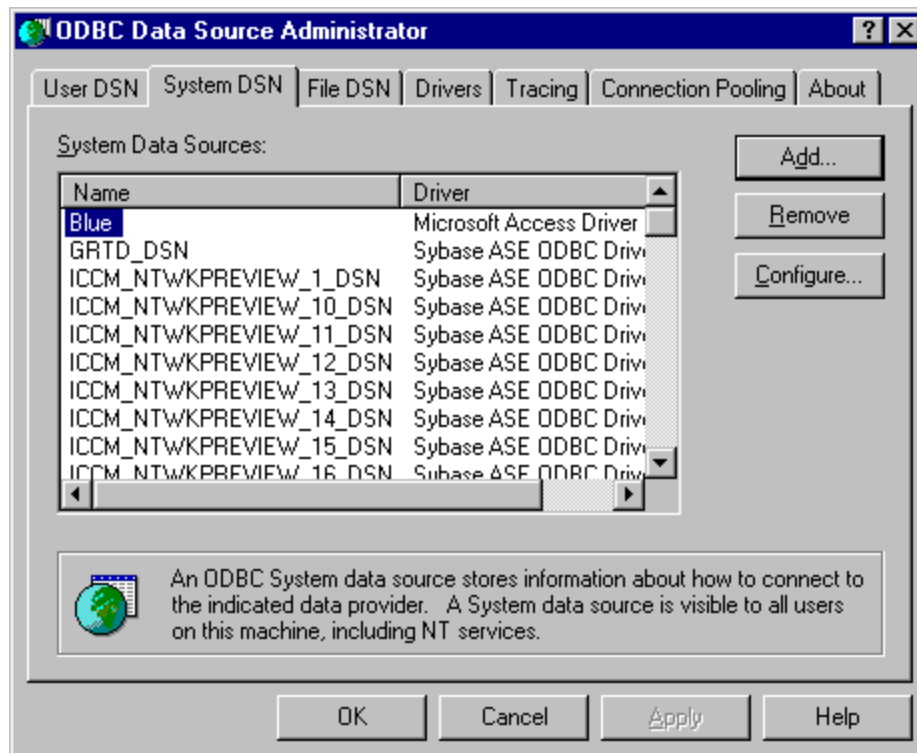
- 14 From the File drop-down list box, choose Exit.



## To define the DSN

- 1 From the Windows Start menu, choose Settings -> Control Panel.
- 2 Double-click the ODBC Data Source icon.

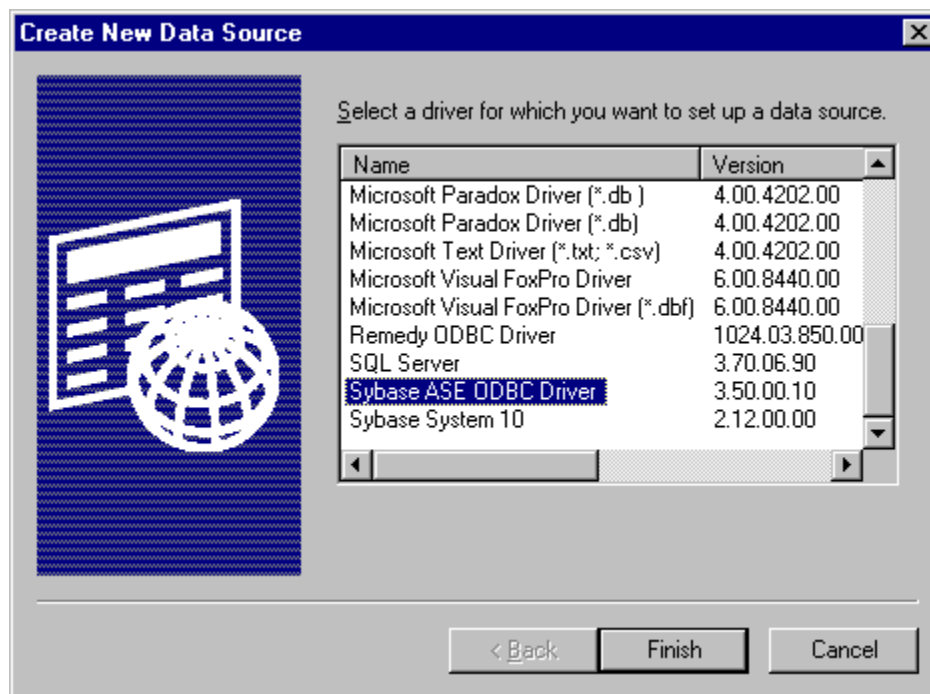
**Result:** The ODBC Data Source Administrator window appears.



3 Click the System DSN tab.

4 Click Add.

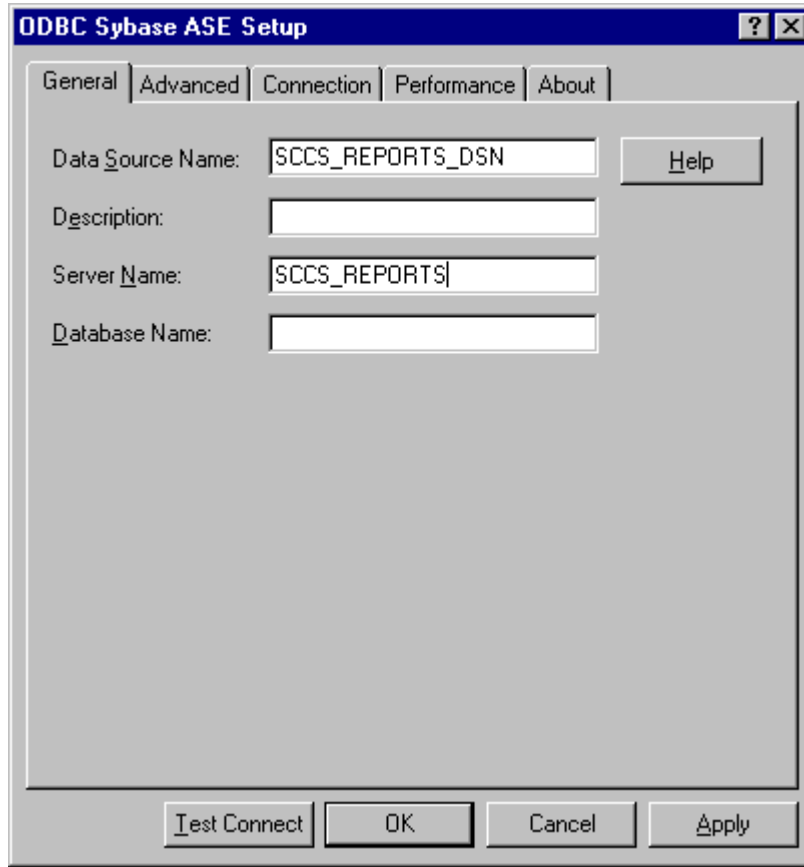
**Result:** The Create New Data Source window appears.



5 Select Sybase ASE ODBC Driver.

- 6 Click Finish.

**Result:** The ODBC Sybase ASE Setup window appears.



The screenshot shows the 'ODBC Sybase ASE Setup' dialog box with the 'General' tab active. The 'Data Source Name' field is filled with 'SCCS\_REPORTS\_DSN'. The 'Server Name' field is filled with 'SCCS\_REPORTS'. The 'Database Name' field is empty. The 'Description' field is empty. The 'Help' button is to the right of the 'Data Source Name' field. The 'Test Connect', 'OK', 'Cancel', and 'Apply' buttons are at the bottom.

- 7 Enter information into the following boxes:

**Data Source Name:** The name for the data source (for example, SCCS\_REPORTS\_DSN).

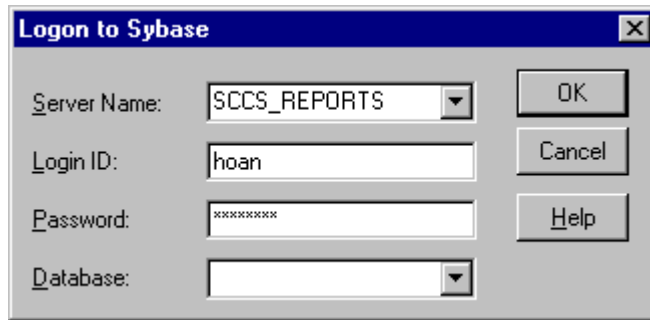
**Description:** (Optional) Additional information about the data source.

**Server Name:** The name of the server you defined in step 5 in the section To define a connection to the server on page XX of this document (for example, SCCS\_REPORTS).

**Database Name:** Leave blank.

- 8 Click Test Connect.

**Result:** The Logon to Sybase window appears.



- 9 Enter information into the following boxes:

**Login ID:** The login ID of the Symposium Call Center Server user (for example, SCCS Client login ID).

**Password:** The password of the Symposium Call Center Server user.

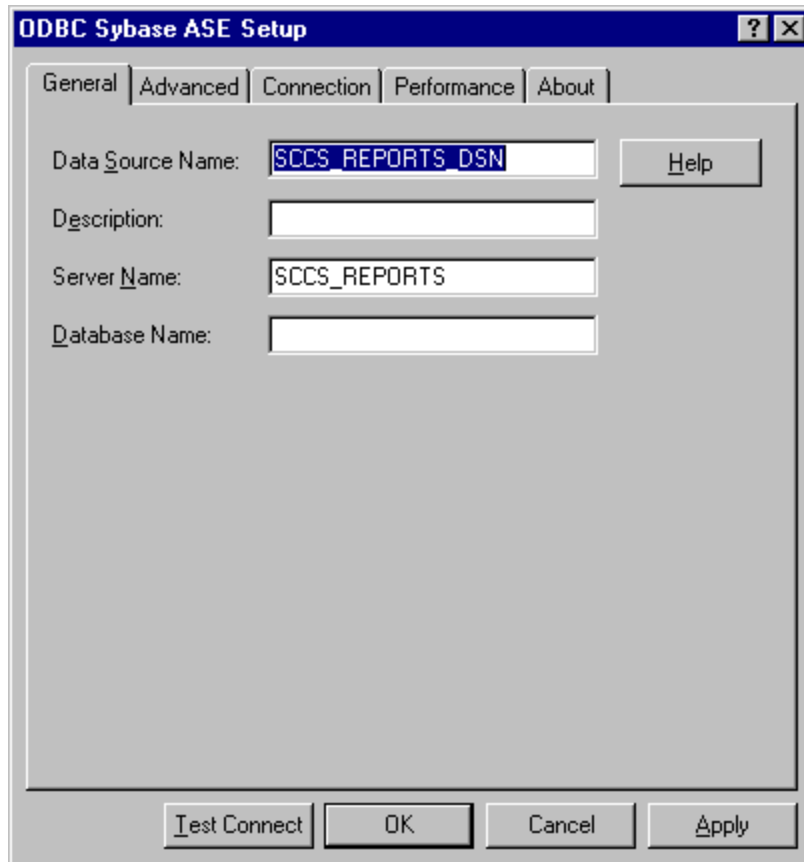
- 10 Click OK.

**Result:** The Connection established dialog box appears.



- 11 Click OK.

**Result:** The ODBC Sybase ASE Setup window appears.



**12** Click OK.

## Section 10: Memory replacement on 1001t, 701t, and 702t servers

### Introduction

This section describes memory replacement on:

- 1001t servers
- 701t servers
- 702t servers

### 1001t Servers

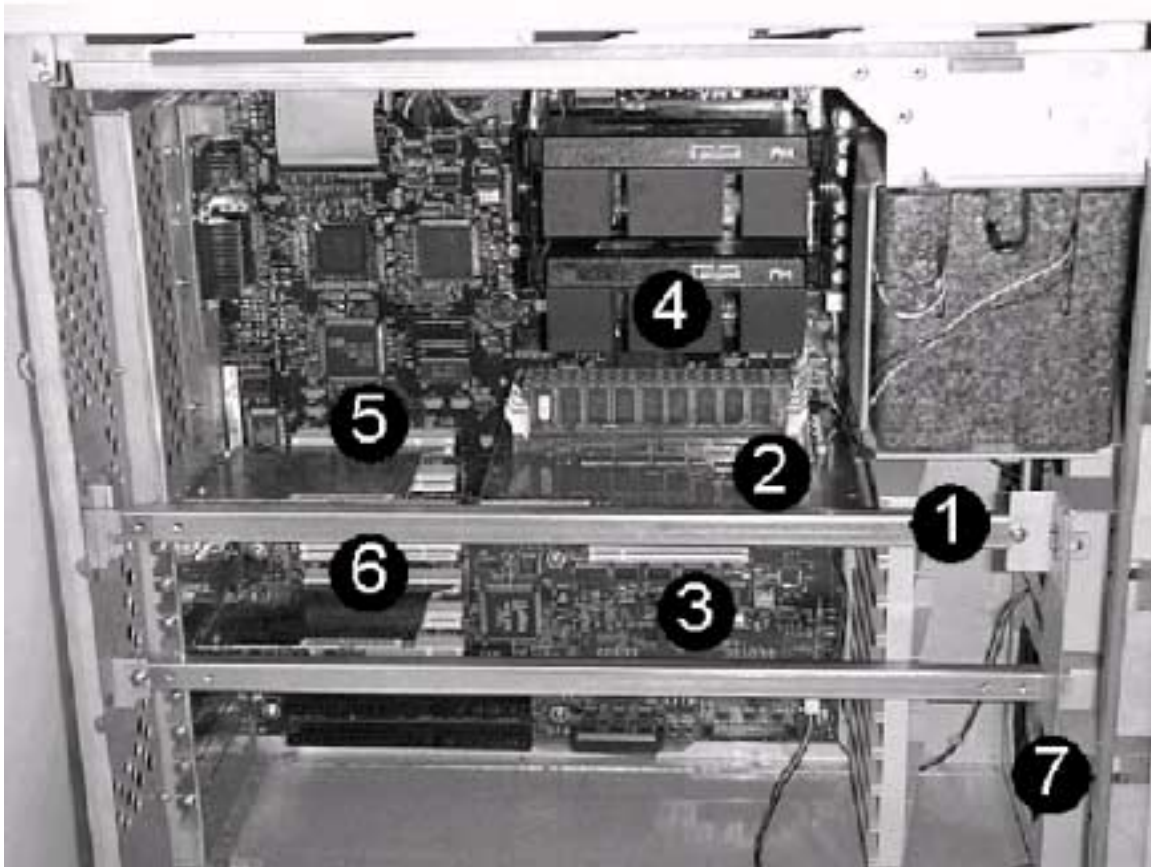
This section provides information on

- locating memory modules on the 1001t, and
- removing and replacing memory

**Note:** For more information, refer to *Nortel Networks Symposium Call Center Server 1001t Hardware Installation Guide*, May 1998 and *Nortel Networks Symposium Call Center Server 1001t Maintenance and Diagnostics Guide*, May 1998.

### 1001t Server memory location

Figure 1 shows the internal details of the 1001t chassis. The table below details DIMMs locations.

**Figure 1: 1001t server memory location**

| Item | Description                           |
|------|---------------------------------------|
| 1    | Cross bar used to secure memory board |
| 2    | DIMM memory board                     |
| 3    | Motherboard                           |
| 4    | CPU board                             |
| 5    | ELAN Network interface/adapter card   |
| 6    | CLAN Network interface/adapter card   |
| 7    | Cooling fan                           |

**Caution:** Risk of equipment damage. Use an ESD strap to protect static-sensitive components.

**Warning:** Risk of personal injury. Exercise caution in handling the sharp edges of the side panels and chassis to prevent personal injury.

## **Inspecting the 1001t interior**

To remove the server chassis cover and inspect the interior, follow these steps:

- 1 Remove the three screws securing the right side panel cover (on the right as viewed from the back of the server) to the rear of the chassis.
- 2 Remove the cover.
- 3 Clip the lead from your ESD wrist strap to an unpainted section of the chassis or and exposed screw.

## **Removing memory modules on 1001t servers**

### ***Purpose***

Memory modules are installed on the memory board. The board contains four DIMM sockets for installing memory. Mixed sizes and types of DIMMs can be installed in the four memory banks; however, their speeds must be the same.

**Caution:** Use extreme care when removing a DIMM. Too much pressure can damage the socket slot. Apply only enough pressure on the plastic ejector levers to release the DIMM.

### ***Requirement***

To perform this procedure, you need an antistatic wrist strap.

### ***Removing the memory modules***

To remove memory DIMMs, follow these steps:

- 1 Remove the memory board from the server.
- 2 Gently push the plastic ejector levers out and down to eject a DIMM from its socket.
- 3 Hold the DIMM only by its edges, being careful not to touch its components or gold edge connectors. Carefully lift it away from the socket, and store it in an antistatic package.
- 4 Repeat to remove other DIMMs as necessary.
- 5 Run the SCU to configure the system.



## Installing memory modules on 1001t servers

### *Purpose*

You can install memory modules to replace faulty ones, or to increase the memory resources available on your system. Memory modules are installed on the memory board. The board contains four DIMM sockets for installing memory. Mixed sizes and types of DIMMs can be installed in the four memory banks; however, their speeds must be the same.

### *DIMM Sizes and Compatibility*

Contact your Nortel sales representative or service technician for approved DIMMs for the platform you are using, or refer to the information provided earlier in this Bulletin.

**Caution:** Use extreme care when installing a DIMM. Too much pressure can damage the socket. DIMMs are keyed and can be inserted in only one way.

### *Requirement*

To perform this procedure, you need an antistatic wrist strap.

### *Installing the DIMMs*

To install DIMMs, follow this procedure:

- 1 Holding the DIMM only by its edges, remove it from its antistatic package.
- 2 Orient the DIMM so that the two notches in the bottom edge of the DIMM align with the keyed socket.
- 3 Insert the bottom edge of the DIMM into the socket, and press down firmly on the DIMM until it seats correctly.  
**Note:** When the DIMM seats correctly, the plastic ejector levers lock back to an upright position. Do not push the plastic ejector levers - if they are not in an upright position, the DIMM is not seated correctly.
- 4 Repeat the steps to install each DIMM.
- 5 Run the SCU to configure the system.

## 701t Servers

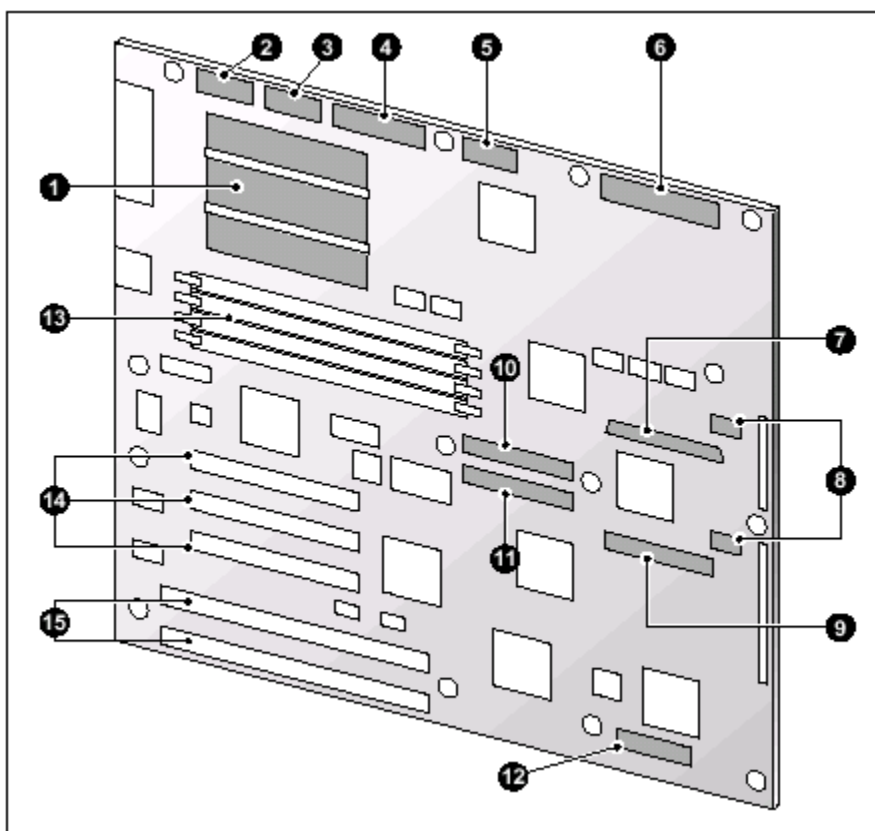
This section provides information on how to locate memory modules on the 701T, and how to remove and replace memory.

**Note:** The information in this section has been taken from the *Nortel Symposium Call Center Server 701t Maintenance and Diagnostics Guide, February 1998*. For complete instructions, please refer to this document.

## 701t Server memory location

Figure 2 shows the internal details of the 701t chassis. The table below details DIMMs locations.

**Figure 2: 701t server memory location**



| Item | Description               |
|------|---------------------------|
| 1    | CPU                       |
| 2    | Serial port B connector   |
| 3    | Front panel connector     |
| 4    | ATX power connector       |
| 5    | Auxiliary power connector |
| 6    | Main power connector      |

| Item | Description                         |
|------|-------------------------------------|
| 7    | Wide SCSI interface                 |
| 8    | Fan connectors                      |
| 9    | Diskette drive interface            |
| 10   | IDE header—IDE1, secondary channel  |
| 11   | IDE header—IDE0, primary channel    |
| 12   | Server monitor module connector     |
| 13   | Memory DIMM socket                  |
| 14   | PCI slots 1, 2, 3 for add-in boards |
| 15   | ISA slots 1 and 2 for add-in boards |

**Caution:** Risk of equipment damage. Use an ESD strap to protect static-sensitive components.

## Removing memory modules on 701t servers

### *Before you begin*

Before removing motherboard DIMMs, you must power down the server and remove the side panel.

**Caution:** Use extreme care when removing a DIMM. Too much pressure can damage the socket slot. Apply only enough pressure on the plastic ejector levers to release the DIMM.

### *To remove the memory modules:*

- 1 Gently push the plastic ejector levers out and down to eject a DIMM from its socket.
- 2 Hold the DIMM only by its edges, being careful not to touch its components or gold edge connectors. Carefully lift it away from the socket, and store it in an antistatic package.
- 3 Repeat to remove other DIMMs as necessary.
- 4 Run the SCU to configure the system and to properly recognize the current memory configuration.

## Installing memory modules on 701t servers

### ***Before you begin***

Before removing motherboard DIMMs, you must power down the server and remove the side cover.

**Caution:** Risk of equipment damage.

Use extreme care when installing a DIMM. Too much pressure can damage the socket. DIMMs are keyed and can be inserted in only one way.

Mixing dissimilar metals may cause later memory failures, resulting in data corruption. Install DIMMs with gold-plated edge connectors only in gold-plated sockets.

- 1 Holding the DIMM only by its edges, remove it from its antistatic package.
- 2 Orient the DIMM so that the two notches in the bottom edge of the DIMM align with the keyed socket.
- 3 Insert the bottom edge of the DIMM into the socket, and press down firmly on the DIMM until it seats correctly.

**Note:** When the DIMM seats correctly, the plastic ejector levers lock back to an upright position. Do not push the plastic ejector levers—if they are not in an upright position, the DIMM is not seated correctly.

- 4 Repeat the steps to install each DIMM.
- 5 Run the SCU to configure the system and to properly configure the memory.

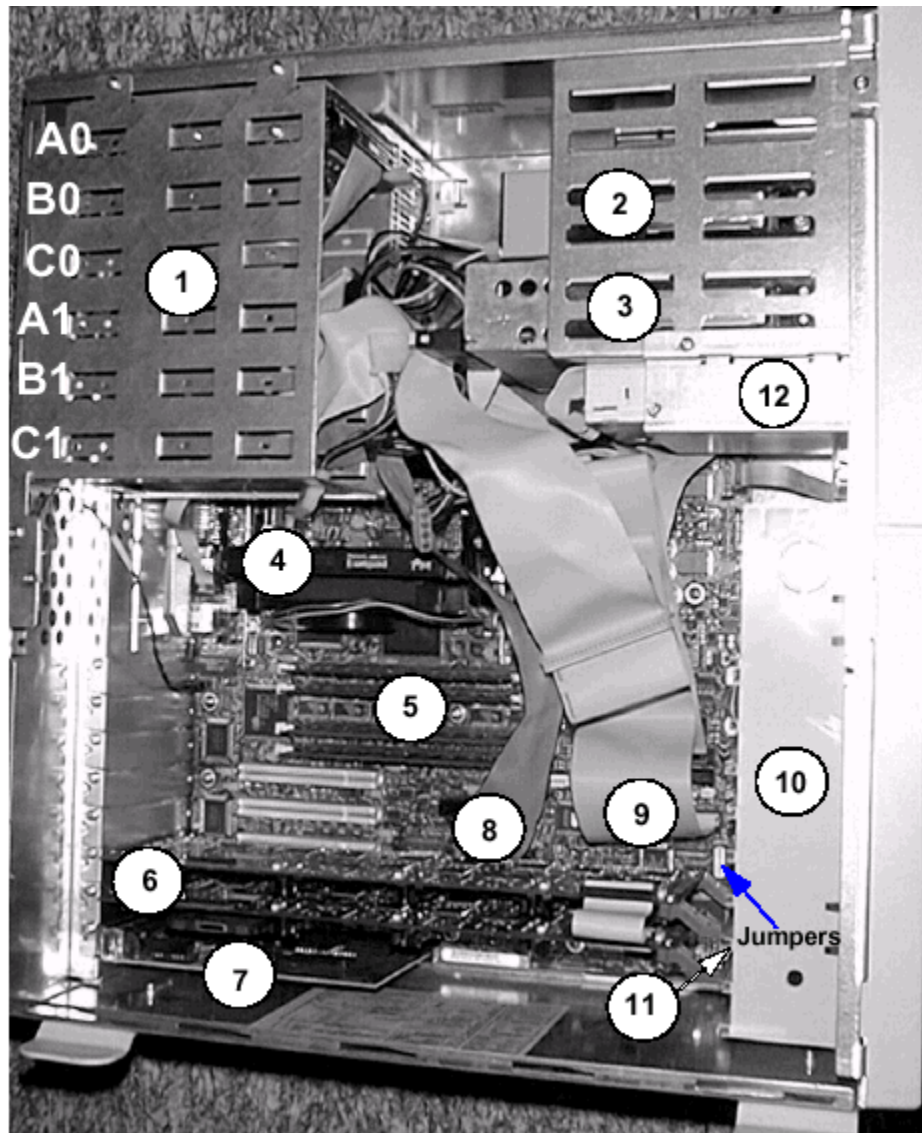
## 702T Servers

This section provides information on how to locate memory modules on the 702T, and how to remove and replace memory.

**Note:** The information in this section has been taken from the *Nortel Symposium Call Center Server 702T Installation and Maintenance Guide*. For complete instructions, please refer to this document.

### 702T Server memory location

Figure 3 shows the internal details of the 702t chassis. The table below details DIMMs locations.

**Figure 3: 702t server memory location**

| Item | Description                                                                   |
|------|-------------------------------------------------------------------------------|
| 1    | Internal SCSI hard drive bays<br>(From the top, A-0, B-0, C-0, A-1, B-1, C-1) |
| 2    | Tape drive                                                                    |
| 3    | CD-ROM                                                                        |
| 4    | CPU                                                                           |
| 5    | Dual Inline Memory Modules (DIMMs) -<br>memory slots                          |

| Item | Description                                                                                         |
|------|-----------------------------------------------------------------------------------------------------|
| 6    | Multimedia processing boards (MPB-16) two available slots                                           |
| 7    | CLAN card                                                                                           |
| 8    | Wide SCSI Connector                                                                                 |
| 9    | Narrow SCSI Connector                                                                               |
| 10   | Fan assembly                                                                                        |
| 11   | Jumpers for Baseboard Jumper settings These are located along the right-hand edge on the backplane. |
| 12   | Floppy disk                                                                                         |

## Installing memory modules on 702t servers

### ***Purpose***

Before you install baseboard DIMMs, power down the server and remove the side cover.

**Caution:** Use extreme care when installing a DIMM. Too much pressure can damage the socket. DIMMs are keyed and can be inserted in only one way.

Mixing dissimilar metals may cause later memory failures, resulting in data corruption.

- 1 Holding the DIMM only by its edges, remove it from its antistatic package.
- 2 Orient the DIMM so that the two notches in the bottom edge of the DIMM align with the keyed socket.

## Section 11: Installing Windows NT 4.0 and the SCSI driver on a 1000t server

The section describes the procedure for installing Windows NT 4.0 and the Windows NT 4.0 SCSI CD-ROM driver on a 1000t server.

- 1 Insert the Windows NT Server Setup Diskette #1 into drive A and Windows NT server setup CD-ROM in the CD-ROM drive.
- 2 Boot up or reboot the system.
- 3 Insert Diskette #2 when prompted.
- 4 In the Windows NT server setup menu Welcome to Setup, press Enter to set up Windows NT.
- 5 Press C to select Custom setup.
- 6 Press S to specify the mass storage devices in your computer.
- 7 If the system does not use RAID, select the Adaptec AHA-2940/AIC-78xx (PCI).
- 8 If the system uses RAID, select Other, insert the DAC960 driver floppy diskette when prompted for the manufacturer's hardware support diskette, and select the DAC960 NT SCSI driver.
- 9 Insert Diskette 3 when prompted and press Enter to continue.
- 10 The hardware information is shown on screen.
- 11 Setup has recognized the following mass storage devices
- 12 Press Enter to continue. When the RAID controller is installed, both the AIC78xx and DAC960 adapters are detected. You should see:  
  
Windows NT has determined that your computer includes a CD-ROM drive as well as ... floppy disk drives.
- 13 At the same time, you are prompted to select the media from which you will install Windows NT.
- 14 Press Enter to select To install Windows NT from CD-ROM.

For more information, please refer to the Nortel Symposium Call Center Server 1000t Maintenance and Diagnostics Guide.

## **Section 12: Keycode process when converting and adding features**

This section clarifies the keycode requirements when a customer wishes to do the following either simultaneously or in close succession:

- Convert from one release to another, such as when converting from Release 1.5 to Release 4.0, and
- Add additional features, such as expanding the number of concurrent agents.

If the customer wishes to perform the above simultaneously, then it is possible to obtain one keycode for both. If however, the customer would prefer to implement the changes one at a time, then two keycodes can be purchased.